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FIGURE 4184C

CCCCGTCACCAAATCGGAATGCTGCTGTGACGGAGGGAGAGGCTGGGGTCCCCACTGTGAGATCTGCCCTTTCCA
GGGGACTGTGGCTTTCAAGAACTCTGTCCCCATGGCCGAGGATTCATGACCAATGGAGCAGATATCGATGAATG
CAAGGTTATTACGATGTTTGCCGAAATGGGGAATGTGTCAATGACAGAGGATCATATCATTGCATTTGTAAAC
TGGGTACACTCCAGATATAACTGGGACTTCCTGTGTAGATCTGAACGAGTGCAACCAGGCTCCCAAACCTGCAA
TTTTATCTGCAAAAACACAGAAGGGAGTTACCAGTGTTCATGCCCCGAAAGGCTACATTCTGCAAGAGGATGGAAG
GAGCTGCAAAAGATCTTGATGAGTGTGCAACCAAGCAACACAACCTGCCAGTTCCTATGTGTTAACACCATTGGCGG
CTTCACATGCAAAATGTCCTCCCGGATTTACCCAACACCATAACGTCCTGCATTGATAACAATGAATGCACCTCTGA
CATCAATCTGTGCGGGTCTAAGGGCATTGTCAGAACACTCCTGGAAGCTTCACCTGTGAATGCCAGCGGGGATT
CTCACTTGATCAGACCGGCTCCAGCTGTGAAGACGTGGACGAGTGTGAGGGTAACCACCGCTGCCAGCATGGCTG
CCAGAACATCATTGGGGGCTACAGGTGCAGCTGCCCCAGGGCTACCTCCAGCACTACCAGTGGAAACAGTGTGT
TGATGAAAACGAATGCCTCAGCGCTCACATCTGCGGAGGAGCCTCCTGTCAACAACCCCTGGGGAGCTACAAGTG
CATGTGTCCCGCCGGCTTCCAGTATGAACAGTTCAGTGGAGGATGCCAAGACATCAATGAATGTGGCTCTGCGCA
GGCCCCCTGCAGCTATGGCTGTTCCAATACCGAGGGCGGTTACCTGTGTGGCTGTCCACCTGGTTACTTCCGCAT
AGGCCAAGGGCACTGTGTTTCTGGAATGGGCATGGGCCGAGGAAACCCAGAGCCACCTGTCACTGGTGAAATGGA
TGACAATTCACTCTCCCCAGAGGCTTGTTACGAGTGTAAAGATCAATGGCTACCCCAAACGGGGCAGGAAACGGAG
AAGCACAACGAAACTGATGCCTCCAATATCGAGGATCAGTCTGAGACAGAAGCCAATGTGAGTCTTGCAAGTTG
GGATGTTGAGAAGACAGCCATCTTTGCTTTCAATATTTCCACGTCAGTAACAAGGTTGCAATCCTAGAATCCT
TCCAGCTCTTACAACCTTGACGAATCACAACAGATACTTGATCGAATCTGGAAATGAAGATGGCTTCTTTAAAT
CAACCAAAAGGAAGGGATCAGCTACCTCCACTTCACAAAGAAGAAGCCAGTGGCTGGAACCTATTCAATACAAAT
CAGTAGTACTCCACTTTATAAAAAGAAAGAACTTAACCAACTAGAAGACAAATATGACAAAGACTACCTCAGTGG
TGAATGGGTGATAATCTGAAGATGAAAATCCAGGTTTTGCTTCATTAATTCACCATCCAGAGACCAATAATTA
AAAGAAAAACAAATATAGATAGGTAGAACTATATTTTCCCCAATCAGAATCATCATATCATAGGTACAATCTTT
CACCAAGTAAATTTGTATAAATAAGCACTATTCTTTGTATTACCAAAGCAAGGTACAGGTGACTACCCTAGTTCA
AAACAACCACTTTCTCAGGCTTCTCATGTGTGTAGCTAAGCTACCTTGTCTATATGTGTGATTCTTGAAACTGG
GACGTGTATTTCCATTGGGGGTTGGCCATTTATGCTGACATGCCATCCTTCCAGCAAACGTACGGGAATGTGCTT
TCAATTGATGGACTACTCTATTTTTTGCAATTTGTAACTTTGCTTCTCCAAATACAAGTACTAGGTTGTCCAT
TTATGGTACCTATTTGGTGCTAGTAAATTTTCAAACTAGATTTATAAATGCACTGTAATATGTACACAACCTAGA
AACCAAATTACAAGTATTCAGTTCCAATACTTCATTAATTTCAATCAACCAAGTTAGTTCACTAGCTTATCTCA
GTTATGAGTATAATACATTACATGTAAATTAAGTGTGTGTATACTGTAATCGTGCTATTTTTTATCATTGAAACA
TTTATAAACTAGAATAATAATGCCCTTAATGTGAGGGTTTGTAATGGTGCTTATTAAGACCAAAGACTTGTTAAA
TGTATACACCAAGTGGTAATGAAATTTGGGTGACTGGCCACACGTGCATAGAGGTCTGGGAGGACCAGGAAACA
GCCTCAGTGGCCAGAGGATCACCAGTGCATCCTTCATCACAGCATGTGCAATATGCCAAGATTACCCTCGGTCAT
TCCTGTCAACAAGGGGTCAATGTCATAATGTCACAATAAAACAATCTCTCTTTTTTTTAGTTT

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FIGURE 4185

MRRGRLLLEIALGFTVLLASYTSHGADANLEAGNVKETRASRAKRRGGGGHDALKGPNVCGSRYNAYCCPGWKTLF
GGNQCIVPICRHSCGDGFCSRPNMCTCPSGQIAPSCGSRSIQHNCNIRCMNGGSCSDDHCLCQKGYIGTHCGQPVC
ESGCLNGGRCVAPNRCACTYGTGTPQCERDYRTGPCFTVISNQMCQQLSGIVCTKTLCCATVGRAWHPCCEMCP
AQPHPCRRGFIPNIRTGACQDVDECQAIPGLCQGGNCINTVGSFECKCPAGHKLNEVSQKCEDIDECSTIPGICE
GGECTNTVSSYFCKCPPGFYTSPDGTTRCIDVRPGYCYTALTNGRCSNQLPQSITKMQCCCDAGRCWSPGVTVAPE
MCP IRATEDFNKLCSPVMVIPGRPEYPPPLGPIPPVLPVPPGFPQPQIPVPRPPVEYLYPSREPPRVLPVNV
DYCQLVRYLCQNGRCIPTPGSCRCECNKGFLDLRGECDVDECEKNPCAGGECINNQSITCQCRAGYQSTLTR
TECRDIDECQLNGRICNNGRCINTDGSFHCVCNAGFHVTRDGKNCEDMDECSIRNMCLNGMCINEDGSFKCICKP
GFQLASDGRYCKDINECETPGICMNGRCVNTDGSYRCECFPLAVGLDGRVCVDTHMRSTCYGGYKRGQCIKPLF
GAVTKSECCASTEYAFGEPCQPCPAQNSAEYQALCSSGPGMTSAGSDINECALDPDICPNGICENLRGTYKCIC
NSGYEVDSTGKNCVDINECVLNSLLCDNGQCRNTPGSFVCTCPKGFYIKPDLKTCEDIDECSSPCINGVCKNSP
GSFICECSSESTLDPKTIETIKGTWQTVIDGRCEININGATLKSQCCSSLGAAGWSPCTLCQVDPICGKGY
SRIKGTQCEDIDECVFPFVGCKNGLCVNTRGSFKCQCPSGMTLDATGRICLDIRLETCLFLRYEDEECTLP IAGRH
RMDACCCSVGAAGWTEECCECPMRNTPEYEELCPRGPGFATKEITNGKPFKDI NECKMIPSLCTHGKCRNTIGS
FKRCRDSGFALDSEERNCTDIDECRISPDLCGRGQCVNTPGDFECKCDEGYESGFMNMKNCMDIDECQDRPLLCR
GGVCHNTEGSRCECPPGHQLSPNISACIDINECELSAHLCPNGRCVNLIGKYQCACNPGYHSTPDRFLFCVDIDE
CSIMNGGCETFTCTNSEGSYECSCQPGFALMPDQRSCTDIDECEDNPNICDGGQCTNIPGEYRCLCYDGFMA SEDM
KTCVDVNECDLNPNICLSGTCENTKGSFICHCDMGYSKKGKTGCTDINECEIGAHCNCGKHAVCTNTAGSFKCS
SPGWIGDGIKCTDLDECSNGTHMCSQHADCKNTMGSYRCLCKEGYTGDFGTCTDLDECSNENLNLGNGQCLNAPG
GYRCECDMGFVPSADGKACEDIDECSLPNICVFGTCHNLPGLFRCECEIGYELDRSGGNCTDVNECLDPTTCISG
NCVNTPGSYICDPPDFELNPTRVGCVDTTRSGNCYLDIRPRGDNGDTACSNEIGVGVS KASCCCSLGKAWGTPCE
MCPAVNTSEYKILCPGGEGFRPNPITVILEDIDECQELPGLCQGGKCINTFGSFQCRCP TGYLLNEDTRVCDV
ECETPGICGPGTCYNTVGNITCICPPDYMQVNGGNNCMDMRRSLCYRNYADNQTCDGELLFNMTKKMCCCSYNI
GRAWNKPCEQCP IPSTDEFATLCGSQRPGFVIDIYTG L PVDIDECREIPGVCENGVCINMVGSFRCECPVGFFYN
DKLLVCEDIDECQNGPVCQRNAECINTAGSYRCDCKPGYRFTSTGQCNDRNECQEIPNICSHGQCIDTVGSFYCL
CHTGFKTNDQTMCLDINECERDACGNGTCRNTIGSFNCRCHGFI LSHNND CIDVDECASGNLNLGRNGQCINT
VGSFQCCNEGIEVAPDGRTCVDINECLLEPRKCAPGTCQNL DGSYRCICPPGYS LQNEKCEDIDECVEEPEICA
LGTC SNTEGSFKCLCPEGFSLSSSGRRQC DLMSYCYAKFEGGKCSSPKSRNHSKQECCALKGEGWGPCELCP
TEPDEAFRQICPYGSGIIVGPDDSAVDMDECKEPDVCKHGQCINTDGSYRCECFGYILAGNECVDTDECSVGNP
CGNGTCKNVIGGFECTCEE GFEPGPMTCEDINECAQNPLLC AFRVCNTYGSYECKCPVGYVLREDRRMCKDEDE
CEEKGHDCTEKQMECKNLIGTYMCICGPGYQRRPDGEGCVDENECQTKPGICENGRCLNTRGSYTCECNDGFTAS
PNQDECLDNREGYCFTEVLQNMCI GSSNRNPVTSECCDGGRGWGP HCEICPFQGTVAFFKLCPHGRGFM TNG
ADIDECKVIHDVCRNGECVNDGRSYHCICKTGYTPDITGTSCVDLNECNQAPKPCNFICKNTEGSYQCSCP KGYI
LQEDGRSCKDLDECATKQHNQCFLCVNTIGGFTCKCPPGFTQHHTSCIDNNECTSDINLCGSKGICQNTPGSFTC
EQQRGFSLDQTGSSCEDVDECEGNHRCQHGCQNIIGGYRCSCPQGYLQHYQWNQCVDENECLSAHICGGASCHNT
LGSYKCMCPAGFQYEQFSGGCQDINECGSAQAPCSYGCSNTEGGYLCGCPPGYFRIGQGHCVSGMGMGRGNPEPP
VSGEMDDNSLSPEACYECKINGYPKRGRKRSTNETDASNIEDQSETEANVSLASWDVEKTAIFAFNISHVSNKV
RILELLPALTTLTNHNRYLIESGNEDGFFKINQKEGISYLHFTKKKPVAGTYSLQISS TPLYKKKELNQLEDKYD
KDYLSGELGDNLMKMIQVLLH

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FIGURE 4186

AAGATGCTGAAAGGAAAGAAGGCCAAGGGAAAGAAGGTGGCTCCGGCCCCCTGCAGTCGTGAAGAAGCAGGAGGCT
AAGAAAGTGGTGAATCCCGTTTGAGCAAAGGCCTAAGAATTTTGGCATTGGACAGGACATCCAGCCCCAAAAGAGA
CCTCACCCGCTTTGTGAAATGGCCCCACTATATCAGGCTGCTGGCAAAGGGGATGTCCCCACGAAGAGACCACCT
GTCCTTCGAGCAGGAGTTGACACCGTCACCACCTTGGTGGACAATAAGAAAGCTCAGCTGGTGCTGATTGCACAC
GACGTGGATCCCATCGAGCTGGTTGTCTTCTTGCCCTGCCCTGTGTCGTAAAAATGGGGGTCCCTTACTGCATTATC
AAGGGGAAGGCAAGACTGGGACGTCTAGTCCACAGGAAGACCTGCACCACTGTGGCCTTCACACAGGTGAACTCG
GAAGACAAAGGCGCTTTGGCTAAGCTGGTGGAAAGCTATCAGGACCAATTACAACGACAGATACGATGAGATCCGC
CGTCACTGGGGCGGCAACGTCCTGGATCCTAAGTCTGTGGCTCGCATCGCCAAGCTCGAAAAGGCAAAGGCTAAA
GAACTTGCCACTAAATTGGGTAAATGTACACTGTTGAGTTTTCTGTACATAAAATAATTAAATAATATAAATT
TTCCTTC

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FIGURE 4187

[illegible]

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FIGURE 4188

MAAAAKPNNLSLVVHGPGDLRLNYP IPEPGPNEVLLRMHSGICGSDVHYWEYGRIGNFIVKKPMVLGHEASGT
VEKVGSSVKHLKPGDRVAIEPGAPRENDEFCKMGRYNLSPSIFFCATPPDDGNLCRFYKHNAAFICYKLPDNTFE
EGALIEPLSVGIHACRRGGVTLGHKVLVCGAGPIGMVTLVAKAMGAAQVVVTDLSATRLSKAKEIGADLVLQIS
KESPQEIARKVEGQLGCKPEVTIECTGAEASIQAGIYATRSGGTLVLVGLGSEMTTVPLLHAAIREVDIKGVFRY
CNTWPVAISMLASKSVNVKPLVTHRFPLEKALEAFETFKKGLGLKIMLKCDPSDQNP

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FIGURE 4189

GGAGAACTATCCTATCCCTGAACCAGGCCCAAATGAGGTCTTGCTGAGGATGCATTCTGTTGGAATCTGTGGCTC
AGATGTCCACTACTGGGAGTATGGTCGAATTGGGAATTTTATTGTGAAAAAGCCCATGGTGCTGGGACATGAAGC
TTCGGGAACAGTCGAAAAAGTGGGATCATCGGTAAAGCACCTAAAACCAGGTGATCGTGTTGCCATCGAATCTGG
TGCTCCCCGAGAAAAATGATGAATTCTGCAAGATGGGCCGATACAATCTGTACCTTCCATCTTCTTCTGTGCCAC
ACCCCTGATGATGGGAACCTCTGCCAGTTCTATAAGCACAATGCAGCCTTTTGTACAAGCTTCCTGACAATGT
CACCTTTGAGGAAGGCGCCCTGATTGATCCACTTTCTGTGGGGATCCATGCCTGCAGGAGAGGCGGAGTTACCCT
GGGACACAAGGTCCTTGTGTGTGGAGCTGGGGCAATCGGGGTAGTCACTTTGCTCGTGGCCAAGGCAATGGGAGC
AGCTCAAGTAGTGGTGACTGATCTGTCTGCTACCCGATTGTCCAAAGCCAAGGAGATTGGGGCTGATTTAGTCCT
CCAGATCTCCAAGGAGAGCCCTCAGGAAATCGCCAGGAAAGTAGAAGGTCTGCTGGGGTGCAAGCCGGAAGTCAC
CATCGAGTGACGGGGCAGAGGCCTCCATCCAGGCAGGCATCTACGCCACTCGCTCTGGTGGGACCCTCGTGCTT
GTGGGGCTGGGCTCTGAGATGACCAACCGTACCCCTACTGCATGCAGCCATCCGGGAGGTGGATATCAAGGGCGTG
TTTCGATACTGCAACACGTGGCCAGTGGCGATTTTCGATGCTTGCCTCCAAGTCTGTGAATGTAAAACCCCTCGTC
ACCCATAGGTTTCTCTGGAGAAAGCTCTGGAGGCCTTTGAAACATTTAAAAGGGATTGGGGTTGAAAATCATG
CTCAAGTGTGACCCAGTGACCAGAATCCCTGATGTTAATGGGCTCTGCCCTCATCCCCAGTCTCGGGATCTCAG
GGCACAATGGCTGGACATGGGTGGGCTCTGATGCAGAACTTTCTCTTTTGAATGTTAAGAATAACTAATAAATT
CATTGTGAACAGAAGTCCTTACGCAGAGGAATTGGTGTGCCTTAAAGATAACAATCTGGGATAGTTTGGGGAACT
TGTAGCCAGAATGCCCTGTTTCATGCTGAGCAAAGTTCAGCAAGTAGAGCAGAGTTTGGCAGGCAGGTGCCAGGAA
CTCCCCCTTCTTCTGGAGTGCCTTCATTGAGGAAGGAAATCTGGCCCTTGGGTTTCTGGTTCCACTGCTACTGA
CCCAGAGGGGAATGAGGGCTGAGTTATGAAAAGATAACTTCATGAAGACTTAACTGGCCCAGAAGCTGATTTTCA
TGAAAATCTGCCACTCAGGGTCTGGGATGAAGGCTTGTGAGCACTTCCAGTTTAGAACGCAATGTTTCTAGAGAC
ATATTGGCTGTTTGTGTTTATGATGATAAAAGGAGAATAAGAAAAGGCATCACTTTCTGGATCCAGGATAATTTTAA
AACCAATCAAATGAAAAAACAACAAACAAAAAGGAAATGTCATGTGAGGTAAACCAGTTTGCAATCCCCTA
ATGTGGAAAAAGTAAGAGGACTACTCAGCACTGTTTGAAGATTGCCTCTTCTACAGCTTCTGAGAATTGTGTTAT
TTCATTGCCAAGTGAAGGACCCCTCCCCAACATGCCCCACCCACCCCTAAGTACGGTCCCTTGTACCAGGC
AACCAGGAAACTGCTACTTGTGGACCTCACCAGAGACCAGGAGGTTTGGTTAGCTCACAGGACTTCCCCCACC
CAGAAGATTAGCATGCCATACTAGACTCATACTCAACTCAACTAGGCTCATACTCAATTGATGGTTATTAGACAA
TTCCATTTCTTTCTGGTTATTATAAACAGAAATCTTTCTCTTCTCATTACCAGTAAAGGCTCTTGGTATCTTT
CTGTTGGAATGATTTCTATGAACTTGTCTTATTTTAAATGGTGGGTTTTTTTTCTGGTAAGATTTGGACCTAAATC
GCATCATGCCAACTTGTGACTTTGAGACTATTCAAGAATGAGGATATAGTAGCCATGACATAGCTTGAGCTA
TAGCCTTTAATTCCTTACTTTGGCTATGGGTGGAGGTGAGTTTGAAGAGGTTCTGATTTTCTGTAACCTGGGA
AAGCCATGACCTTGTGCCCGATTCTTTAGATTGCTTTGGGTAATAAATATTGGTGGTGGTATCTG

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FIGURE 4190

MHSVGICGSDVHYWEYGRIGNFIVKKPMVLGHEASGTVEKVGSSVKHLKPGDRVAIESGAPRENDEFCKMGRYNL
SPSIFFCATPPDDGNLCQFYKHNAAF CYKLPDNVTFEEGALIDPLSVGIHACRRGGVTLGHKVLVCGAGAIGVVT
LLVAKAMGAAQVVVTDLSATRLSKAKEIGADLV LQISKESPQEIARKVEGLLGCKPEVTIECTGQRPPSRQASTP
LALVGPSC LWGWALR

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FIGURE 4191

ATGGGAAAGGGCTCCTTCAAGTATGCCTGGGTCTTGGATAAACTGAAAGCTGAGCGTGAACATGGTATCACCATT
CATATCTCCTTGTGGAAATTTGAGACCAGCAGGTACTATGTGACTATCACTGATGTCCCAGGACACAGAGACTTC
ATCAAAAATATGATTACAGGGACATCTCAGGCTGACTGTGCTGTCCTGATAGTTGCTGCTGGTGTGCCCCTGCTT
CTCCAGGATGTCTACAAAATTGATGGTATTGGTACTGTTCTATTGGCCAAGTGGAGACTGGTGTCTCAAACCT
GGTATGGTGGTCATCTTTGCTCCAGTCAACATTACAACCTGAAGTAAATCTGTCAAAGGCACCATGAAGATTTG
AGTGAAGCTCTTCTGGGGACAATGTGGGCTTCAATGTCAAGAATGTGTCTGTCAAGGATCTTGTGCTGGCAAC
TTTGCTGGTGACAGCAAAAATGACCCACCAATGGAAGCAGCTGGCTTCACTGCTCAGATGATTATCCTGAACCGT
CCAGGCCTAATCAGCCCTGGCTACGTCCCTGTACTGGATTGCCACATGGCTCACCTTGCATGCAAGTTTGCTGAG
CTGAAGAAAAGATTGATCGCCATTCTGCTGGAAGATGGCCCTAAATTCTTGAAGTCTGGTGATGCTGCCATCGTT
GACATGGTTCCTGTAAAGCCCATGTGTGTTAAGAGCTTCTCAGACTATCCACCTCTGGATCGCTTTGCTGTTCAI
GATATGAGACAGACAGTTGTATGGGTGTCATCAAAGCAGTGGACAAGAAGGCTGCTGGAGCTGGCAAGGCTGTC
CACACCTCTACACTTTAGAGGCTTCCCTGAATGGGATGCCCGTGATGAAAACATCCACCAGGAAGAAAGTGGCC
TTTGAAAAAGACGTACAATAA

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FIGURE 4192

MGKGSFKYAWVLDKKAEREHGITIHHISLWKFETSRYVVTITDVPGHRDFIKNMITGTSQADCAVLIVAAGVGEF
EAGISRMSTKLMVLVLFLLAKWRLVFSNLVWSSLLQSTLQLK

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FIGURE 4193

CTGGTCTAACAGACCCGCGAGAACGAAGGACGCTTGCCTTTTTCCGGTCCGGGAAGGGGGAAGAAGGTAAC TTCC
GGTGACGGGGTTGCATCACTTCCTCTCAAGCTTGGCGTTTGTTTGGTGGGGTTACACGCGGGTTCAACATGCGTA
TCGAAAAGTGTTATTTCTGTTCCGGGGCCCATCTATCCTGGACACGGCATGATGTTTCGTCCGCAACGATTGCAAGG
TGTTTCAGATTTTGCAAATCTAAATGTCATAAAAACTTTAAAAAGAAGCGCAATCCTCGCAAAGTTAGGTGGACCA
AAGCATTCCGGAAGCAGCTGGTAAAGAGCTTACAGTGGATAATTCAATTTGAATTTGAAAAACGTAGAAATGAAC
CTATCAAATACCAGCGAGAGCTATGGAATAAACTATTGATGCGATGAAGAGAGTTGAAGAAATCAAACAGAAGC
GCCAAGCTAAATTTATAATGAACAGATTGAAGAAAAATAAGAGCTACAGAAAGTTTCAGGATATCAAAGAAGTCA
AGCAAAACATCCATCTTATCCGAGCCCCCTCTTGACAGGCAAAGGGAAACAGTTGGAAGAGAAAATGGTACAGCAGT
TACAAGAGGATGTGGACATGGAAGATGCTCCTTAAAAATCTCTGTAACCATTTCTTTTATGTACATTTGAAAATG
CCCTTTGGATACTTGGAAC TGCTAAATTATTTTATTTTACATAAGGTCAC TTAAATGAAAAGCGATTAAAAGA
CATCTTTCCCTGCATTGCCATCTACATAATATCAGATATTACGGATGTTAGATTGCATCTCAGTGTTAAATCTTTA
CTGATAGATGTACTTAAGTAAATCATGAAAATTTCTACTTGTAAC TATAGAAGTGAATTGTGGACGTAAAATGGTT
GTGCTATTTGGATAATGGCACTAGGCAGCATTTGTATAGTAACTAATGGCAAAAATTCATGGCTAGTGATGTATA
AAATAAAATATTCTTTGCAGTAAATATTCCCTTTGTTAATGTTATAGAAGGGGGGATACAAAAGGAACTAACA
ATTTGTATGGCAGTGTCAGATATTTTATTTTAGTATTTCTGTTTTGGTTTTATTTGCATCTTAGAAGAGCATAA
TGACATTGTTTGATGAAGCCTAATTATGCTGGACTGTTTTGACCTGGTTTAACCCTTCTGATAGGTAGTTGTGGA
TGCTGGGGATGAGAACTGAATAATCTTTGCCTGGAGTGACACTACACTCTAGAATTTCCACTTTGGAGAATACTC
AGTTCCAAC TTGTGATTCCTGATAGAACAGACTTTACTTTTCTAGCCCAGCATTGATCTAGAAGCAGAGGAATCC
CAGCGCCTTTTAAAAGTTGTTATGTGGTTTTCTTTTAAAAGCTCCTGTTTTTGGAAAGTAGAATTTATGGGTAC
AACGTATGTTTATTATTTGTACATAAAATAAAACCATT TAAAAAGTAAAAAAAAAAAAAAAAA

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FIGURE 4194

MRIEKCYFCSGPIYPGHGMMFVRNDCKVFRFCKSKCHKNFKKKRNPRKVRWTKAFRKAAGKELTVDNSFEFEKRR
NEPIKYQRELWNKTIDAMKRVEEIKQKRQAKFIMNRLKKNKELQKVQDIKEVKQNIHLIRAPLAGKGKQLEEKMV
QQLQEDVDMEDAP

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FIGURE 4195

ACATAACTCCCCATGTCTGTTGATAAAAAAGAGACCCTAAGGAGGATTAAACTGTTCTCATCCTTTTCGTTAGGGA
ACTGGGAATTGAAGCTGGAGTGACTGCAGCTACTTATACACCTGGTGCATTGCATCCTCACTTGGCCCCATTATCA
CGCACCTCCTCGACTTCATCATTACAATTAGGAGCTCTTCTTTAATGGTTCTTGATATGGCAGGCTATCCTCA
CATCCGTTACATTTTCATCAGGATTGGATGGAACATCATTAGAGGTCCTTTTCAGGGGCAATTTTGAGGAACTGAT
TCATTTGGAAGAAAGATTAGGCAATGTCAATCGTGGAGCATCCCAGGGGACAATTGAAAGATGTACATATCCACA
TAAATACAAAAAGAGGAACTGCACTGCAAACAAGATGGGGAAGAAGGGACTGAGGAAGACACAGAGGAAAAATG
TACTATCTGTTTGTCTATTTTAGAGGAAGGTGAAGATGTGAGACGTCCTCCATGTATGCACCTTTTCCACCAAGT
GTGTGTTGACCAATGGTTGATTACCAATAAGAAGTGCCCCATATGCAGAGTGGACATTGAGGCCAGCTGCCAAG
TGAAAGTTGACACCATGTTTCAGAACTCTTGCCCTCCCTCTCATTCCCATCCTTCCTGGTACTGCAGTCAACCAA
AGATGGCATGACTTACCTGCGCAGATTGGAAGCATTGAACCTAGAGTGTGGCTCTGCTATATGGTACAACATA
TGCTAGACCTACAGTTTATGTATACAGTTGATTTTGATGTATTTATAAAGCTTTTTTTTCTAGATTTGACATTT
TTCTGTATCATTTTACTGTATTTTGCATGGTTCCCTGTATTGCATTTCTTGCACATATTATGGGCTTGTGACC
CTAAACTTGCAGGCAAGGTTAGCTGCTTTAGTAAGTAGAATTTGTGGTCTTTTGTGTTTTTACATAGTACCAAG
CCTTGATAATTATGAATTTTTTATCCATTACTAACCTTTAATTTAATCAATCATGTACTTTAGTTTAAATGTATAA
AGATCCTCTAGAAAATGATAATATTGTGTATTAAGACATTCCTTAATTAGGACAAAATGGCTGCTGTATATTTAC
TATATGGAGTTCTGAGTTAAATACCATCCTTAATACTGGGAACAGAATACAACCCATATAAATCAGATGCAGGTG
GTAGTCACATCACCAGAGTGATCAGTATAAATTTCTTGGTGTATCCTTTTCTTTCAACACAGTGCAGATAAGA
GTTGAATATTGATATCATACATTTAGACTGCTGTTCTGATTGCATTTATCTTTTCTTACATCATTAGAAATTT
ATTTCCCTGATTTCAGTTTTTGTCTGTGTGAAACAGCTCTGATGAACACTAAATATTAATTTCAATTAGCTAGATT
GTACATACTTGCAGATTTAACAAAATTTTAGGGAAATTGAAAAAGACATGTAGAATTTGTTGTCTTCTGCTAAGC
ACGAAAAGTTAAGATATCTGCTTACATTGATTTTGTAGACACATTAAGTCAAGATTTGGAATTTAAGTCACTGGC
AGGTATCTGTGCATTTCATAGAACCTTATAAAGGTCCAGGATCACTTTTAAGGGATTTTTATTAGTTTAAAGGTAA
ATAAAGTCAGCTGAATCTACATGTCTCTTGTGTTTTATTTCTCTCTAAACTTGAAAACAGTAAATCTGCAGATACTG
TGAGGCACAAATTATACTGTCAACCTACTGTTGCTATGGTTATATACTCCCACTTCATACATTACCAAGAGTCTGA
TCACTGATTTAAAATTTTTAATTTCTATAGTTAAGATTTACTGCATAATATAGAATATAAAGTTAAGTTAACATA
CTAACATTTCTCCTTTGGAGGAAGTTTTAATCTACTTCAGGATGCATATTATTATCAAGATACTTTTCATATACAG
GATAGCCTAATTTTATTTGTTTAAATATGCTTAATATGCCCCAGATTGCAAATGCATCCAGTCAGTAATATCACT
GTCTGTATGTGGAGGACATGTTCCCATGGATCATATGTGAAGATGTCAATAAGCTTGCAATTAAGCCACCTGCTTT
GTAAGTGGATTGATTAATAAATAACTTATATTTCTAAAAA

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FIGURE 4196

MVPDMAGYPHIRYISSGLDGTSGFRGPFGRNFEELIHLEERLGNVNRGASQGTIERCTYPHKYKKRKLHCKQDGEE
GTEEDTEEKCTICLSILEEGEDVRRLLPCMHLFHQVCVDQWLI TNKKCPICRVDIEAQLPSES

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FIGURE 4197

AATCCTGGAACAAGGCTACAGCGTCGAAGATCCCCAGCGCTGCGGGCTCGGAGAGCAGTCCTAACGGCGCCTCGT
ACGCTAGTGTCCTCCCTTTTCAGTCCGCGTCCCTCCCTGGGCCGGGCTGGCACTCTTGCTTTCCCGTCCCTCAT
GGCGCTGCTCCGACGCCCAGCGGTGTCCAGTGATTTGGAGAATATTGACACAGGAGTTAATTCTAAAGTTAAGAG
TCATGTGACTATTAGGCGAACTGTTTTAGAAGAAATTGGAAATAGAGTTACAACCAGAGCAGCACAAAGTAGCTAA
GAAAGCTCAGAACACCAAAGTTCCAGTTCAACCCACCAAAAACAACAAATGTCAACAAACAAGTAAACCTACTGC
TTCTGTCAAACCAGTACAGATGGAAAAAGTTGGCTCCAAAGGGTCCTTCTCCACACCTGAGGATGTCTCCATGAA
GGAAGAGAATCTCTGCCAAGCTTTTTCTGATGCTTGTCTGTCAAAATCGAGGACATTGATAACGAAGATTGGGA
GAACCTCAGCTCTGCAGTGACTACGTTAAGGATATCTATCAGTATCTCAGGCAGCTGGAGGTTTTGCAGTCCAT
AAACCCACATTTCTTAGATGGAAGAGATATAAATGGACGCATGCGTGCCATCCTAGTGGATTGGCTGGTACAAGT
CCACTCCAAGTTTAGGCTTCTGCAGGAGACTCTGTACATGTGCGTTGGCATTATGGATCGATTTTTACAGGTTCA
GCCAGTTTCCCGGAAGAAGCTTCAATTAGTTGGGATTACTGCTCTGCTCTTGGCTTCCAAGTATGAGGAGATGTT
TTCTCCAAATATTGAAGACTTTGTTTACATCACAGACAATGCTTATACCAGTTCCCAAATCCGAGAAATGGAAAC
TCTAATTTTGAAAGAATTGAAATTTGAGTTGGGTCGACCCCTGCCACTACACTTCTTAAGGCGAGCATCAAAAGC
CGGGGAGGTTGATGTTGAACAGCACACTTTAGCCAAGTATTTGATGGAGCTGACTCTCATCGACTATGATATGGT
GCATTATCATCCTTCTAAGGTAGCAGCAGCTGCTTCCTGCTTGTCTCAGAAGGTTCTAGGACAAGGAAAATGGAA
CTTAAAGCAGCAGTATTACACAGGATACACAGAGAATGAAGTATTGGAAGTCATGCAGCACATGGCCAAGAATGT
GGTGAAAGTAAATGAAAACTTAACTAAATTCATCGCCATCAAGAATAAGTATGCAAGCAGCAAACCTCTGAAGAT
CAGCATGATCCCTCAGCTGAACTCAAAAGCCGTCAAAGACCTTGCCTCCCCACTGATAGGAAGGTCCTAGGCTGC
CGTGGGCCCTGGGGATGTGTGCTTCATTGTGCCCTTTTTCTTATTGGTTTAGAACTCTTGATTTGTACATAGTC
CTCTGGTCTATCTCATGAAACCTCTTCTCAGACCAGTTTTCTAAACATATATTGAGGAAAAATAAAGCGATTGGT
TTTTCTTAAGGTAAAAA

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FIGURE 4198

MALLRRPTVSSDLENIDTGVNSKVKSHVTIRRTVLEEIGNRVTTTRAAQVAKKAQNTKVPVQPTKTTNVNKQLKPT
ASVKPVQMEKLAPKGPSPTPEDVSMKEENLCQAFSDALLCKIEDIDNEDWENPQLCSDYVKDIYQYLRQLEVLQS
INPHFLDGRDINGRMRAILVDWLQVHSKFRLQETLYMCVGIMDRFLQVQPVSRKKLQLVGITALLLASKYEEM
FSPNIEDFVYITDNAYTSSQIREMETLILKELKFELGRPLPLHFLRRASKAGEVDVEQHTLAKYLMELTLIDYDM
VHYHPSKVAAAASCLSQKVLGQGKWNLKQQYYTGYTENEVLEVMQHMAKNVVKVNENLTKFIAIKNKYASSKLLK
ISMIPQLNSKAVKDLASPLIGRS

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FIGURE 4199A

CGAGACTCAGCCAGAGGAGTACGGATTAAGTGGCCGAAGAAAGAGGAGTGAGGCAGGGGAGCGAGGCGGACGCTC
CGAGCGCATCGGACTCACCTGGGCGGCGGCGACCGCGAGTACGAGTGGACTCTTGCCCTCCGCAGCATGCGCC
CCGCCTGCTAAGTCGCCGCCGCTCTGCCCTCACCTAGCACCGCCAATCCCGCCTGGATGGAGTCCCCTCTGGGTT
CCCATTGGCTCCTGTGAGTGCTTGGGTGTCGGGAGCCTGTTTTTGGCGAGGGGAACCAACTTTTGAAGTTCGCC
AGAAGACTGCGTTCCAGCCCCAGTTCCCCGGCAGCGGGACCCGGCGAAGACGCGACCGCGCGAGTCACCATG
GGAAGCAAAGGTGTCTACCAGTACCCTGGCAAAGCCACAATGTCAAGCACAGTGGTGTGGACGACATGGTGCTA
CTGTCCAAAGATCACAGAGAACTCCATCGTGGAGAATCTGAAGAAGAGATACATGGATGACTACATTTTTACATAT
ATAGGATCTGTATTAATCTCAGTCAACCCCTTTCAAGCAGATGCCATATTTTGGGGAAAAGGAAATTGAAATGTAC
CAAGGAGCGGCACAGTATGAAAACCCACCACATATCTATGCCCTTGACAGATAATATGTACAGAAACATGATCATT
GACAGAGAGAACCAGTGCCTCATTATCAGTGGTGAAAGTGGTGCTGGAAAAACAGTGGCTGCCAAATATATCATG
AGCTACATCTCCAGAGTGTCTGGAGGAGGGACCAAAGTCCAGCACGTGAAGGACATTATCTGCAGTCCAACCCG
CTGCTGGAGGCCTTCGGGAACGCCAAGACCGTCCGGAACAACAACCTCCAGCCGATTGGAAAATACTTTGAAATC
CAGTTCAGTCCAGGTGGGGAACCAGATGGTGGAAAGATCTCCAACCTTCTTCTGGAAAAATCTAGGGTGGTGATG
AGGAACCCAGGAGAGCGGAGTTTTACATATTTTACCAGCTCATCGAGGGCGCCTCTGCAGAGCAGAAACACAGC
CTTGGCATCACAGCATGGACTATTATTACTACCTGAGCCTCTCGGGCTCATACAAGTTGATGACATTGACGAC
AGGCGGGAGTTTCAGGAACTCTGCACGCCATGAATGTGATTGGGATCTTTCAGAGAAGAGCAAACGCTGGTGTTG
CAGATAGTGGCGGGTATTCTCCACCTGGGAAACATCAGCTTCAAAGAAGTTGGCAACTACGCGGCTGTGGAGAGT
GAAGAGTTTTTAGCTTTTCTGCATATCTGCTAGGGATAAACAGGACCGGTTGAAAGAAAAGCTAACAGCCGG
CAGATGGATAGCAAGTGGGGAGGCAAATCCGAATCCATCCACGTGACCCTCAACGTAGAGCAGGCCTGTTACACC
CGGGATGCGCTCGCCAAGGCCCTGCACGCCCGGGTCTTTGATTTCTTGGTAGATTCCATCAATAAAGCCATGGAG
AAAGACCATGAAGAATACAACATTGGCGTCTTAGACATCTATGGCTTTGAAATATTCCAGAAAAATGGCTTTGAA
CAGTTTTGTATCAATTTTGTTAATGAAAACTGCAGCAGATTTTTATTGAACTGACATTAAAGGCAGAACAGGAA
GAATATGTTCAAGAGGGAATAAGATGGACACCCATTGAGTACTTTAATAATAAAATCGTATGTGACCTCATAGAG
AACAAAGTGAACCCCTCTGGCATCATGAGCATCTGGATGACGTGTGCGCCACGATGCATGCGGTGGGTGAGGGG
GCAGATCAGACGCTGCTCCAGAACTTCAGATGCAGATTGGGAGTCATGAGCACTTCAACAGTTGGAACCAAGGC
TTCAICATTTCATTATGCTGGGAAGGTATCCTATGACATGGATGGCTTTTGTGAAAGGAACCGGGATGTGCTT
TTTATGGATCTCATCGAGCTTATGCAGAGCAGCGAGCTGCCTTTCATAAAGTCTTTATTTCCGGAAAAATCTGCAG
GCTGACAAGAAAGGGCGCCCACTACTGCCGGAAGCAAATAAAGAAACAAGCCAATGACCTTGTGAGCACCCCTG
ATGAAATGTACGCCCCACTACATTGCTGTCATCAAGCCAAACGAAACCAAGAAGCCCAGAGACTGGGAGGAAAGC
AGGGTAAAGCATCAAGTCGAATATTTGGGTCTGAAAGAGAACATTGAGTGAGAAGAGCTGGCTATGCCTATCGG
CGCATCTTCCAAAAATTCCTACAGAGGTATGCCATTCTGACCAAAGCCACCTGGCCTTCTTGGCAGGGAGAGGAG
AAGCAAGGCGTCTTGACCTGCTGCAGTCCGTCAACATGGACAGCGACCACTCCAGCTGGGGAGGAGTAAAGTG
TTCATCAAAGCCCCGAGTCTCTATTCTTTTAGAAGAGATGAGAGAGAGAAAGTATGATGGGTATGCTCGAGTG
ATACAGAAATCATGGAGGAAATTCGTGGCCCGGAAGAAATACGTTCAAATGAGAGAAGAAGCCTCAGACCTCTTA
TTGAACAAGAAGGAGAGAAGGAGAAACAGTATTAACAGGAACCTTATAGGGGATTATATTGGGATGGAAGAGCAC
CCAGAACTCCAGCAGTTCTGTGGGCAAGAGGGAGAAGATTGATTTCCGACACACAGTCACCAAGTATGACAGGAGG
TTCAAGGGTGTAAGCGAGACCTGCTCCTTACCCCAAAGTGCTTGTAATCGGACGAGAAAAAGTCAAACAG
GGCCAGACAAGGGCTGGTGAAAGAAGTCTGAAGCGGAAAAATCGAGATAGAACGGATCTTGCTGTGTGCCCTC
AGTACTATGCAGGATGACATTTTTATTCTCCATGAGCAAGAGTATGACAGTTTGCTTGAATCTGTCTTCAAACT
GAATTCCTAAGCCTCTTAGCAAAGCGTTACGAGGAGAAGACCCAGAAGCAACTACCTCTGAAATTCAGCAATACG
CTTGAAGTGAAGTTGAAAAAGGAAAACTGGGGCCCTGGAGTGCAGGGGGCTCCCGGCAAGTGCAGTTCCACCAA
GGGTTTGGGGACCTGGCTGTCTCAAGCCCAGTAACAAAGTGCTGCAGGTGAGCATCGGACCTGGACTGCCCAAG
AACTCCCGTCTTACCAGAAGGAACACTACCCAAAAATACAGGTATTTCAGTGGGACTCAAAATGCCAACTACCCA
GTGAGAGCTGCCCTCCTCCCCAGGATACCATCAGAACGGAGTCATCAGAAACCAGTATGTGCCATATCCCCAT
GCTCCTGGAAGCCAGAGGTCCAATCAGAAAAGCCTGTACACCTCCATGGCCCCCGCCCTTGCTCGGCAGCAG
TCTACAGTTCAGACCGAGTGTACAGACGCCAGAGAGCCTGGATTTCTCAAGGTCCCGGACCAGGGAGCTGCA
GGGGTCAGGAGACAAACAACCAGTCGGCCTCCCCAGCAGGGGGCAGACCCAAGCCCCAGCCCAAGCCCAAGCCT
CAGGTGCCACAGTGCAAGGCTTTGTATGCCTATGACGCTCAGGACACAGACGAACCTCAGCTTTAATGCCAATGAC

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FIGURE 4199B

ATTATTGATATTATCAAAGAAGATCCTTCTGGCTGGTGGACGGGTCGACTACGAGGCAAGCAGGGCCTGTTCCCC
AACAACTATGTGACCAAGATCTGAGGTGCCCCGTGACTCTGACACATGGGGCAGAGGAGCTCCAGGCACAGACCAG
GGGAGGGGATATTTAGGGGCTCCCCTTACAATCCACAATGAGCAATTGCTTCTCCAAGGCCTGGAGCTATTCTGG
TACCTTCCCCATGGAGGACACTGAAAAGGCTGGGTGGGGACAGGGAGTATCACTCCATAAGTGATCCTAAAAGG
TAGCCTCTTCATAGGAACCCAGGAGGACAAAACCAACCATGCATTAAGATTTATTTATTGTATTTAAACCTGGTGA
GAGGACAAGTGAGGTCTGCTCAGACCTTGTAGGCTTCTATCAAAACAGCACCCCTGCTTGCTCACCAGGCCTAGAG
AATGGCTGTAGGTGGCCGCTGACAAGTGCCTTTAGTTGAAGAGCACATTTCTTTTCATCTCTCTTGTCCTACCTG
ATAGACACATTCCTCTCTGCCACCTTCCTTCAGGGAGGACCCGCCCTCTGCAGACTGGGCTTAGCGTGAGCAGGC
ACTTCCCATGTACGTGCCAAGGGTAAGCTGGCCTGCTGAGCCCAGGGCGACAGAGGGGCACTGGTTTTACACTTTG
CCGGGACCATCAGGGCCGCCAAGCAGGTGAGGGGCTGGGGGCTGGGGGCTGGGCTGCTGGCTTTGCTTTCTCTGG
GTCTTCAATTAGAATGTGGCTGGCCCATATTGGTTTGTGTTTAAATGCTGTACTTACTACAAGAAGGATCTTTTT
TCAAGCTGTACATTTATAAAAAACAGATCATATACTGTATATATAAAAAATCTTGAGATGGTAGAAACATGTATGAA
TGTAAGTAGTAGTATTCCACTGTACTCATTTCATAAGGTAGGTTTTCTTACAAAACCTCACACCAGGTACTTAAAGA
TGIGCTCTGCTTTTTTTCCAACCTACGGAGTGTCACTGCTTTCTAGGTCAGTCCCTGCAGACTCTTCTCAACTCTTT
CCCTATAGGAAACTTACT

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FIGURE 4200

TTTTGGCTCTCTCACCAGCACCATGGCTGTTGGCAAGAACAAGCGCCTTACGAAAGGCGGCACAAAAGGGAGCCAA
GAAGAAAGTGGTTGATCCATTTTCTAAGAAAGATTGGTATGATGTGAAAGCACCTGCTATGTTCAATATAAGAAA
TATTGGAAAGACGCTCGTCACCAGGACCCAAGGAACCAAAATTGCGTCTGATGGTCTCAAGGGTCGTGTGTTTGA
AGTGAGTCTTGCTGATTTGCAGAATGATGAAGTTGCATTTAGAAAATTCAAGCTGATTACTGAAGATGTTTCAGGG
TAAAAACTGCCTGACTAACTTCCATGGCATGGATCTTACCCGTGACAAAATGTGTTCCATGGTCAAAAAATGGCA
GACAATGATTGAAGCTCACGTTGATGTCAAGACTACCGATGGTTACTTGCTTCGTCTGTTCTGTGTTGGTTTTAC
TAAAAACGCAAAAATCAGATACGGAAGACCTCTTATGCTCAGCACCAACAGGTCCGCCAAATCCGGAAGAAGAT
GATGGAAATCATGATCCGAGAGGTGCAGACAAATGACTTGAAAGAAGTGGTCAATAAATTGATTCCAGACAGCAT
TGGAAAAGACATAGAAAAGGCTTGCCAATCTATTTATCCTCTCCATGATGTCTTCGTTAGAAAAGTAAAAATGCT
GAAGAAGCCCAAGTTTGAATTGGGAAAGCTCATGGAGCTTCATGGTGAAGGCAGTAGTTCTGGAAAAGCCACTGG
GGACGAGACAGGTGCTAAAGTTGAACGAGCTGATGGATATGAACCACCAGTCCAAGAATCTGTTTAAAGTTTCAGA
CTTCAAAATAGTGGCAAATAAAACGTGCTATTTGT

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FIGURE 4201

MAVGKNKRLTKGGKKGAKKKVVDPF SKKDWDYDVKAPAMFNIRNIGKTLVTRTQGTKIASDGLKGRVFEVSLADLQ
NDEVAFRKFKLITEDVQGKNCLTNFHGMDLTRDKMCSMVKKWQTMIEAHVDVKTTDGYLLRLFCVGFTKKRKNQI
RKTSYAQQVVRQIRKKMMEIMIREVQTNDLKEVVNKLIPDSIGKDIEKACQSIYPLHDV FVRKV KMLKKPKFEL
GKLMELHGEGSSSGKATGDETGA KVERADGYEPPVQESV

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FIGURE 4202

GTGTGGATGAGGTCACCATTTGTCAACATTTTGACCAACCGCAGCAATGCACAGAGACAGGATATTGCCTTCGCCT
ACCAGAGAAGGACCAAAAAGGAACCTTGCATCAGCACTGAAGTCAGCCTTATCTGGCCACCTGGAGACGGTGATTT
TGGGCCTATTGAAGACACCTGCTCAGTATGACGCTTCTGAGCTAAAAGCTTCCATGAAGGGGCTGGGAACCGACG
AGGACTCTCTCATTGAGATCATCTGCTCCAGAACCAACCAGGAGCTGCAGGAAATTAACAGAGTCTACAAGGAAA
XX
XXXXXGGTAGAAGAGCAGAGGATGGCTCTGTCTATTGATTATGAACTGATTGACCAAGATGCTCGGGATCTCTATG
ACGCTGGAGTGAAGAGGAAAGGAACCTGATGTTCCCAAGTGGATCAGCATCATGACCGAGCGGAGCGTGCCCCACC
TCCAGAAAGTATTTGATAGGTACAAGAGTTACAGCCCTTATGACATGTTGGAAAGCATCAGGAAAGAGGTTAAAG
GAGACCTGGAAAATGCTTTCTGAACCTGGTTTCAGTGCATTGAGAACAAGCCCCTGTATTTTGCTGATCGGCTGT
ATGACTCCATGAAGGGCAAGGGGACGCGAGATAAGGTCTGATCAGAATCATGGTCTCCCGCAGTGAAGTGGACA
TGTTGAAAATTAGGTCTGAATTCAAGAGAAAGTACGGCAAGTCCCTGTACTATTATATCCAGCAAGACACTAAGG
GCGACTACCAGAAAGCGCTGCTGTACCTGTGTGGTGGAGATGACTGAAGCCCGACACGGCCTGAGCGTCCAGAAA
TGGTGCTCACCATGCTTCCAGCTAACAGGTCTAGAAAACCAGCTTGCGAATAACAGTCCCCGTGGCCATCCCTGT
GAGGGTGACGTTAGCATTACCCCCAACCTCATTTTAGTTGCCTAAGCATTGCCTGGCCTTCCTGTCTAGTCTCTC
CTGTAAGCCAAAGAAATGAACATTCGAAGGAGTTGGAAGTGAAGTCTATGATGTGAAACACTTTCCTCCTGTGT
ACTGTGTCATAAACAGATGAATAAACTGAATTTGTACTTT

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FIGURE 4203

GTACTCGCCACGGCACCCAGGCTGCGCGCACGCGGTCCCGGTGTGCAGCTGGAGAGCGAGCGGCCACCGGGAGCC
CCCCGGCACAGCCCCGCGCCCCGCCCGCAGGAGCCCGCGAAGATGCCCCGGCGCAGCCTGCACGCGGCGGCGGTGCT
CCTGCTGGTGATCTTAAAGGAACAGCCTTCCAGCCCGGCCAGTGAACGGTTCCAAGTGGACTTATTTTGGTCC
TGATGGGGAGAATAGCTGGTCCAAGAAGTACCCGTCGTGTGGGGGCTGCTGCAGTCCCCCATAGACCTGCACAG
TGACATCCTCCAGTATGACGCCAGCCTCACGCCCCCTCGAGTTCCAAGGCTACAATCTGTCTGCCAACAGCAGTT
TCTCCTGACCAACAATGGCCATTAGTGAAGCTGAACCTGCCCTCGGACATGCACATCCAGGGCCTCCAGTCTCG
CTACAGTGCCACGCAGCTGCACCTGCAGTGGGGGAACCCGAATGACCCGCACGGCTCTGAGCACACCGTCAGCGG
ACAGCACTTCGCCGCCGAGCTGCACATTGTCCATTATAACTCAGACCTTTATCCTGACGCCAGCACTGCCAGCAA
CAAGTCAGAAGGCCTCGCTGTCTGGCTGTTCTCATTGAGATGGGCTCCTTCAATCCGTCCTATGACAAGATCTT
CAGTCACCTTCAACATGTAAAGTACAAAGGCCAGGAAGCATTCTGCCGGGATTCAACATTGAAGAGCTGCTTCC
GGAGAGGACCGCTGAATATTACCGCTACCGGGGGTCCCTGACCACACCCCTTGCAACCCCACTGTGCTCTGGAC
AGTTTTCCGAAACCCCGTGCAATTTCCCAGGAGCAGCTGCTGGCTTTGGAGACAGCCCTGTACTGCACACACAT
GGACGACCTTCCCCAGAGAAATGATCAACAACCTCCGGCAGGTCCAGAAGTTCGATGAGAGGCTGGTATACAC
CTCCTTCTCCCAAGTGCAAGTCTGTACTGCGGCAGGACTGAGTCTGGGCATCATCCTCTCACTGGCCCTGGCTGG
CATTCTTGGCATCTGTATTGTGGTGGTGGTGTCCATTTGGCTTTTCAGAAGGAAGAGTATCAAAAAAGGTGATAA
CAAGGGAGTCATTTACAAGCCAGCCACCAAGATGGAGACTGAGGCCACGCTTGAGGTCCCCGAGCTCCCGGGC
ACA'CCAGGAAGGACCTTGCTTTGGACCCTACACACTTCGGCTCTCTGGACACTTGGCAGACCTCAAGGTGTTCT
CTGTAGCTCAATCTGCAACATGCCAGGCCTCAGGGATCCTCTGCTGGGTGCCTCCTTGCCCTGGGACCATGGCC
ACCCAGAGCCATCCGATCGATGGATGGGATGCACTCTCAGACCAAGCAGCAGGAATTCAAAGCTGCTTGCTGTA
ACTGTGTGAGATTGTGAAGTGGTCTGAATTCTGGAATCACAACCAAGCCATGCTGGTGGGCCATTAATGGTTGG
AAAACACTTTTCATCCGGGGCTTTGCCAGAGCGTGCTTTCAAGTGTCTGGAAAGTCTGCTGCTTCTCCAAGCTTT
CAGACAAGAATGTGCACTCTCTGCTTAGGTTTGTCTGGGAACTCAACTTCTTTCCTCTGGAGACGGGGCATCT
CCCTCTGATTTCTTCTGCTATGACAAAACCTTTAATCTGCACCTTACAACCTCGGGACAAATGGGGACAGGAAG
GATCAAGTTGTAGAGAGAAAAAAGAAAACAAGAGATATACATTGTGATATATTAGGGACACTTTCACAGTCTGT
CCTCTGGATCACAGACACTGCACAGACCTTAGGGAATGGCAGGTTCAAGTCCACTTCTTGGTGGGGATGAGAAG
GGAGAGAGAGCTAGAGGGACAAAGAGAATGAGAAGACATGGATGATCTGGGAGAGTCTCACTTTGGAATCAGAAT
TGGAATCACATTCTGTTTATCAAGCCATAATGTAAGGACAGAATAATACAATATTAAGTCCAAATCCAACCTCCT
GTCAGTGGAGCAGTTATGTTTATACTCTACAGATTTTACAAATAATGAGGCTGTTCTTGAAAATGTGTGTGTG
CTGTGTCCTGGAGGAGACATGAGTTCCGAGATGACCAATCTGCCTTTGAATCTGGAGGAAATAGGCAGAAACAA
AATGACTGTAGAACTTATTCTCTGTAGGCCAAATTTCAATTCAGCCACTTCTGCAGGATCCCTACTGCCAACCTG
GAATGGAGACTTTTATCTACTTCTCTCTCTGAAAGATGTCAAATCGTGGTTTAGATCAAATATATTTCAAGCTA
TAAAGCAGGAGGTTATCTGTGCAGGGGGCTGGCATCATGTATTTAGGGGCAAGTAATAATGGAATGCTACTAAG
ATACTCCATATTCTTCCCCGAATCACACAGACAGTTTCTGACAGGCGCAACTCCTCCATTTTCTCCCGCAGGTG
AGAACCCTGTGGAGATGAGTCACTGCCATGACTGAGAAGGAACCGACCCCTAGTTGAGAGCACCTTGCAGTTCCC
CGAGAACCTTCTGATTCACAGTCTCATTTTGACAGCATGAAATGTCTCTTGAAGCATAGCTTTTTAAATATCTT
TTTCTTCTACTCCTCCTCTGACTCTAAGAATTCTCTCTTCTGGAATCGCTTGAACCCAGGAGGCGGAGGTTGC
AGTAAGCCAAGGTCATGCCACTGCAGTCTAGCCTGGGTGACAGAGCGAGACTCCATCTCAAAAAAAAAAAAAA

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FIGURE 4204

MPRRSLHAAAVLLLVIKEQPSSPAPVNGSKWTFGPDGENSWSKKYPSCGGLLQSPIDLHSDILQYDASLTPLE
FQGYNLSANKQFLLTNNHGSVKLNLPDMHIQGLQSRYSATQLHLHWGNPNDPHGSEHTVSGQHFAELHIVHYN
SDLYPDASTASNKSEGLAVLAVLIEMGSFNPSYDKIFSHLQHVKYKGQEA FVPGFNIEELLPERTAEYYRYRGS
L TTPPCNPTVLWTVFRNPVQISQEQLLALETALYCTHMDDPSPREMINNFRQVQKFDERLVYTSFSQVQVCTAAGL
SLGIILSLALAGILGICIVVVVSIWLFRRKSIKKGDNKGVYKPKATKMETEAHA

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FIGURE 4205

GCAGATCGCTTGCAGCTTGCTAGCTGTGTGGGCTGGGAGGTCTGGTAGGGCTGAGCTTGCAAGAGGATCAACATG
CCTTTGGCTAGAGATTTACTACATCCGTCCTTGGAAGAGGAAAAGAAAAACATAAAAAGAAACGCCTAGTACAA
AGTCCAAATTCCTTACTTTATGGATGTAAAATGTCCAGGTTGCTACAAGATCACCACGGTTTTTCAGCCATGCTCAG
ACAGTGGTTCCTTTGTGTAGGTTGTTCAACAGTGTTGTGCCAGCCTACAGGAGGAAAGGCCAGACTCACAGAAGGG
TGTTTCATTTAGAAGAAAGCAACACTTAATGATTCAAACAGCTTCCTGAATTTTAATTTTGTGTTGTCTCACAGAAA
GCCTTATCATAAATTCATAATTCATAATTAATTTACCAAGATAATGTAATTACATTTGGTTTTGTAAAGGTATACA
GCAGTAATCTCCTATTTTGGTGTGTCAGTTTTTCAATAAAGTTTTGATTATGGGCAAAAAAAAAAAAAAAAAAAAA

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FIGURE 4206

MPLARDLLHPSLEEEKKKKKKRLVQSPNSYFMDVKCPGCKYKITTTFSHAQTVVLCVGCSTVLCQPTGGKARLTE
GCSFRKQH

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FIGURE 4207

CCGCGCGCTCGCCCCGCCGCTCCTGCTGCAGCCCCAGGGCCCCCTCGCCGCCGCCACCATGGACGCCATCAAGAAG
AAGATGCAGATGCTGAAGCTCGACAAGGAGAACGCCTTGGATCGAGCTGAGCAGGCGGAGGCCGACAAGAAGGCG
GCGGAAGACAGGAGCAAGCAGCTGGAAGATGAGCTGGTGTCACTGCAAAAAGAACTCAAGGGCACCGAAGATGAA
CTGGACAAATACTCTGAGGCTCTCAAAGATGCCCAGGAGAAGCTGGAGCTGGCAGAGAAAAAGGCCACCGATGCT
GAAGCCGACGTAGCTTCTCTGAACAGACGCATCCAGCTGGTTGAGGAAGAGTTGGATCGTGCCAGGAGCGTCTG
GCAACAGCTTTGCAGAAGCTGGAGGAAGCTGAGAAGGCAGCAGATGAGAGTGAGAGAGGCATGAAAGTCATTGAG
AGTCGAGCCCCAAAAGATGAAGAAAAAATGGAATTTCAGGAGATCCAAGTGAAGAGGCCAAGCACATTGCTGAA
GATGCCGACCGCAAATATGAAGAGGTGGCCCGTAAGCTGGTCATCATTGAGAGCGACCTGGAACGTGCAGAGGAG
CGGGCTGAGCTCTCAGAAGGCAAATGTGCCGAGCTTGAAGAAGAATTGAAAAGTGTGACGAACAACCTGAAGTCA
CTGGAGGCTCAGGCTGAGAAGTACTCGCAGAAGGAAGACAGATATGAGGAAGAGATCAAGGTCCTTTCCGACAAG
CTGAAGGAGGCTGAGACTCGGGCTGAGTTTGCAGGAGAGGTCAGTAACTAAATTGGAGAAAAGCATTGATGACTTA
GAAGACGAGCTGTACGCTCAGAACTGAAGTACAAAGCCATCAGCGAGGAGCTGGACCACGCTCTCAACGATATG
ACTTCCATATAAGTTTCTTTGCTTCACTTCTCCCAAGACTCCCTCGTCGAGCTGGATGTCCACCTCTCTGAGCT
CTGCAATTTGTCTATTCTCCAGCTGACCCTGGTTCTCTCTCTTAGCATCCTGCCTTAGAGCCAGGCACACACTGTG
CTTTCTATTGTACAGAAGCTCTTCGTTTCAGTGTCAAATAAACACTGTGTAAGCT

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FIGURE 4208

TTGATGCTCTAAATGCAGAATTAATGGAGACTTCAATGACTGATATGTCAATTCTTAGTTTCTTTGAACATTTCC
ATATTTCTCCTGTGAAGTTGCATTTGAGTTTGTCTTTGGGTTCCGGAGGTGAAGAATCAGACAAAGAAAAACAGG
AAATGTTTGCAGTTTCATTCTGTCAACTTGCTGTTGAAGAGCATAGGTGCTACTCTGACTGATGTGGATGACCTTA
TATTCAAACCTTGCTTATTATGAAATTCGATATCAGTTCTACAAGAGAGATCAGCTTATATGGAGTGTGTAGGC
ATTACAGTGAACAGTTCTTGAAACAGATGTATGTCCTTGATTGGGGTTAGATGTACTTGGAACCCATTTGGAT
TAATTAGAGGTCTGTCTGAAGGAGTTGAAGCTTTATTCTATGAACCTTCCAGGGTGCTGTTCAAGGCCCTGAAG
AATTTGCAGAGGGGTTAGTGATTGGAGTGAGAAGCCTCTTTGGACACACAGTAGGTGGTGCAGCAGGAGTTGTAT
CTCGAATCACCGGTTCTGTTGGGAAAGGTTTGGCAGCAATTACAATGGACAAGGAATATCAGCAAAAAAGAAGAG
AAGAGTTGAGTCGACAGCCAGAGATTTTGGAGACAGCCTGGCCAGAGGAGGAAAGGGCTTTCTGCGAGGAGTTG
TTGGTGGAGTGACTGGAATAATAACAAACCTGTGGAAGGTGCCAAAAAGGAAGGAGCTGCTGGATTCTTTAAAG
GAATTGGAAGGGCTTGTGGGTGCTGTGGCCCGTCCAACCTGGTGAATCGTAGATATGGCCAGTAGTACCTTCC
AAGGCATTAGAGGGCAGCAGAATCAACTGAGGAAGTATCTAGCCTCCGTCCTCGCCTGATCCATGAAGATG
GCATCATTGCTCCTTATGACAGACAGGAATCTGAGGGCTCTGACTTACTTGAGAATCATATCAAAAAGTTGGAAG
GAGAGACTTACCGATACCACTGTGCTATTCTGGAAGCAAGAAGACAATCCTTATGGTTACAAATAGGCGAGTGT
TGTGTATAAAGGAAGTTGAAATCCTGGGCCTTATGTGTGTAGACTGGCAATGTCCATTTGAAGATTTTGTATTTT
CTCCTAGTGTGAGTGAATATGTGCTAAAAATTTTCAAGGACACCGCCACAGCAGAGAGAGCATGTAATGCCATTGAGGATG
CACAGTCAACGAGACAGCAGCAAAAATTTGATGAAGCAGTCATCAGTGAGACTTCTCAGACCCCAATTGCCATCTT
AATCAGACCTCAGGGGCTCCAACAGGGAGAAAAACAATCACTGGTCTTGTCTATAAGTCACTCTGCTTTATC
TTGCTAAAGACAATTTTTCAAGCAATCCTTTAGTTTTAGTTTTCTGGAATAGCTAGTATTGGGTTTTCTAGTTTT
TTCACCTTTTAGTTTTTACTCTAATTTTGTAAACATGTATATGCTAGCAGTCCACTTCTACGCCACCACCCAAAT
GGGTGAGACCTTGAAGAAACGTCACCTCAAACCTCAGAATGAAATTTTATTAATATTAATTTGTGAAGCAAAG
GTCAATAGGCTTATATTTAATTAAGCCTTACTGAAGAATAAGAAATGAGCTTAGAATGACTAGTGTCTTTGAA
AGGTTTTTTTTATTTTTGTTTTTTTTGGGGTTTTTTTTTTTTTTTTTTTGTAGACCGAGTCTTGCTCTGTCGCCCAGGCT
GGAATGCAGTGGTGCATCTTGGCTCACTGCAATCTCTGCCTCTCGGGTTCAAGCGGTTCTACTGCCTCAGCCTC
CTGAGTAGCTAGGATTACAGGTGTGTGCCACCACGCCTGGGTAATTTTTTTTTTTTTTTTGTATTTTTTAGTAGAGAT
GAGTTTACCATGTTGGTCACTTAGTCTCGAATCCTGACCTTGTGATCCGCATGCCTCAGCCTCCCAAGTGC
TGGGATTACAGGCATGAGCCACCACGGCCCGCCAAAAGGCTTTAACCCATGAACAAATGTTGGATCCTGACATTT
TGTTTAAGAGTGATTTGTTCAATAATTGAAGTGAAGTAACTTCTTGGTAAACCAGGTAATTGAATGAAGAAAGG
TCACTAAAGGGAGAAATGACATGTTTTCTATTTCTTTTCATGAAAACACTGTTTTTCCCCCTAATAAAGCATAT
TTTACTTTGGTGCTTATTTTTCTCCTTGCAGTCTAATAAAAAAATCTGGACAATCAAACCTTAAATAGCTACA
CTCTGCCCTCTGTAATGTAGCATTCAAAAAATTTGGAAGTATTTACATCCTCTTTCAAGATGAGCTTATATGAC
ACAATTATTATTTGCTGATACATGAAAATCTGCACCTTAAAGTTTCTCAAGACTCTGAAATATGTAAATTTCAAT
ATTTTTATATTTCCAGAAATGTTTCTTACAGGTTGAAAGTCTTTTAAGGGCATCACAAATTAACATTTACTCCT
AATGCACGCCTAGAATGTATTTTAAATACTTACTAAGAAGAATGAAAATCTTTGGTTGTTTTATATATAAATAA
GGCATATATAATGACACTGTGTTCTGTGAGGGAGCAGGCCCTGTGAGAATCAATTCAGGACAGTATTTTTTTTTG
TCCTTTCTCCATCCTTGATCAGAGATAAACTATTAACCTTTAAAAAATACTCAAAAAATATGTAAGTTTTTGGT
TGAACCTTTAGATTTGCTCATAATGTTTAAACATAACAACATTTATTTCAAATCACTGAATTCATGGAGATGTGGA
CACGCTTGGTTTGCTCTATTTTTGTTTTATGTGTGATAGTGGTCTGTGATCATCATTCATGTTTTTTAAGGCCTG
GTCATAAACTTTAAATTTTACTAGTGTACTTAAATGTATATTCTAAAAAGAGAATGCAGTAACTAATGCCCTAA
ATGTTTGATCTCTGTTTGTCTTACTTTTTCAAATTTATTTTTCTGTAAAGTATAATATATAAACTTCTTGC
TTAAATTGAATTTCTATATTAGTGGTTAATTGCAGTTTATTAAAGGGATCATTATCAGTAAATTTATAGCAACTG
TTCTAGTGTTTTGTGTTTTTAAACAGAATTAGGAATTTGAGATATCTGATTATATTTTTCATATGAATCACAGC
TGTTGACAATGTCCCATATATTTAAGAAATTATATCATACTGATACTATTTGTAACATTTTGATTTGATTTAATC
TCCAGGGACAGAAATAATTCATTGGTAAAGTGAATAATGCGTTTTTTAAAAATGCTTTGAGAGGTAATTACTTG
CATATGAGAGAAATAAAACATTTGGCACATTGTTTACAGGTGTGAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 4209

METSMTDMSILSFFEHFHISPVKLHLSLSLGSGGEESDKEKQEMFAVHSVNLLLSIGATLTDVDDLIFKLAYYE
IRYQFYKRDQLIWSVVRHYSEQFLKQMYVLVLGLDVLGNPFGLIRGLSEGVEALFYEPFQGAVQGPEEFAEGLVI
GVRSLFGHTVGGAGVVSRTGSVGKGLAAITMDKEYQQKRREELSRQPRDFGDSLARGGKGLRGVVGVTGII
TKPVEGAKKEGAAGFFKGIGKGLVGAVARPTGGIVDMASSTFQGIQRAAEESTEEVSSLRPPRLIHEDGIIRPYDR
QESEGSDLLENHIKKLEGETYRYHCAIPGSKKTILMVTNRRVLCIKEVEILGLMCVDWQCPFEDFVFPPSVSENV
LKISVKEQGLFHKKDSANQGCVRKVYLKDTATAERACNAIEDAQSTRQQQLMKQSSVRLLRPQLPS

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FIGURE 4210

GCGGCGGCGGCGGCGGCGGCGGTGACGGCCGGGAAGGGTCAGTTGGAGGCAGGCGCTCGCTGAGGCAAAAGGAGG
CGCTCGGCCCCGCGGCTGACAGGGACTTAGCCCCGAGAGATCGACCCCGCGCGCTGACCCACACCCACCCACT
CATCCATCTATCCACTCCCTGCGCCGCTCCTCCACCCTGAGCAGAGCCGCGAGGATGATAAACACCCAGGAC
AGTAGTATTTTGCCTTTGAGTAACTGTCCCGAGCTCCAGTGCTGCAGGCACATTGTTCCAGGGCCTCTGTGGTG
TCCTGATGCCCCCTACCCACTGTGGAAGATCCCCGGTGGGCGAGGGGGCGGCAGGGATCCTTCTCTCTCAGCTCT
AATATATAAGGACGAGAAGCTCACTGTGACCCAGGACCTCCCTGTGAATGATGGAAAACCTCACATCGTCCACTT
CCAGTATGAGGTCACCGAGGTGAAGGTCTCTTCTTGGGATGCAGTCCTGTCCAGCCAGAGCCTGTTTGTAGAAAT
CCCAGATGGATTATTAGCTGATGGGAGCAAAGAAGGATTGTTAGCACTGCTAGAGTTTGCTGAAGAGAAGATGAA
AGTGAACATATGTCTTCATCTGCTTCAGGAAGGGCCGAGAAGACAGAGCTCCACTCCTGAAGACCTTCAGCTTCTT
GGGCTTTGAGATTGTACGTCCAGGCCATCCCTGTGTCCCTCTCGGCCAGATGTGATGTTTATGTTTATCCCT
GGACCAGAACTTGTCCGATGAGGACTAATAGTCATAGAGGATGCTTTACCCAAGAGCCACAGTGGGGGAAGAGGG
GAAGTTAGGCAGCCCTGGGACAGACGAGAGGGCTCCTCGCTGTCTAGGGAAGGACACTGAGGGGCTCAGGGTGAG
GGTTGCCTATTGTGTTCTCGGAGTTGACTCGTTGAAATTGTTTTCCATAAAGAACAGTATAAACATATTATTCAC
ATGTAATCACCATAAGTAAATGAAGATGTTTTATGAACTGGCATTAGAAGCTTTCTAAACTGCGCTGTGTGATGTG
TTCTATCTAGCCTAGGGGAGGACATTGCTTAGAGGGGGAGGGACTGTCTGGGTTTCAAGGGCATGGCCTGGAGGGC
TGGTGGGCAGCACTGTGAGGCTCAGGTTTCCCTGCTGTGGCTTTCTGTTTTGGTTATTAAGACTTGTGTATTTT
CTTTCTTTGCTTCTGTACCCCCAGGGGCTCCTGAGTATAGGCTTTTTCAGTCCCTGGGCAGTGTCTTGTAGTTGT
TTTTTGACACTCTTACCTGGGCTTCTCTGTGTGCATTTGCGTCTGGCCTGGAGTAAGCAGGTCCGACCCCTCGTT
CTTTACAGCTTAGTGTTATTCTGGCATTGTTGTTAAGCTGGCTTAATCTTGTTTAAATGTTATCAGTACATTTTAA
TAGGGGCATTGAAATTTACTCCCACCACCAGGGCTTTTTTGGGGGATGCCTGGGCCTTTAAACACTAGCCAAAC
TCTAATTAATTCTCAAATCACTGCCAGGAGTTCTTGCTCCTGGCTGCAGGCCAGGCCCAAGGTCTCCTTCTTG
GGGTCACAAACAGCAGTAAGGAAGAGGAATATATAGCAACTCAGGGCCTGGGAATTGTGGGGCAATCCGTTCTTA
GGGACTGGATACTTCTGGCTGGCTGAGTATAGTACTAGCTGCCTCCCCACCAGGTTCAGAGTAGTGTCTGAGACT
CTGCTCTGCAGGGCCTAGGGTAGCGCTGGGAGTGTAGAAGTGGCCTGCCCTTAAGTGTCTTCACTAAACAGCTTT
TTCTAAGGGGAGAGCAAGGGGGAGAGATCTAGATTGGGTGAGGGGGACGGGGATGTCAGGGAGGCAAGTGTGTTG
TGTTACTGTGTCAATAAACTGATTTAAAGTT

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FIGURE 4211

AGACAGAGTCTCACTCTGCCGCCAGGCTGGAGTGCAGTGGTGTGATCTGGGCTCACTGCAACCTCTGCCTCCTG
GGTTCAAGCGATTCTCCTGCTTCAGCCTCCTGAGTAGCTGGGATTACAGTGCGTCACCATGCCCCGGCTAATTTTT
GTATTTTTAGTGGAGATGGTGTCTTCCATGTTGACCAGGCTAGTCTCAAACCTCCTGACTTCAGGTGATTACCCC
GCCTCAGCTTCCCAAAGTGCTGGGATTACAGGCACGAGCCATCATGCCCCGCCATCAGTTCAATTAAATCTAGAT
ATCACATTCTTCCATCCTTTTTTATTATACATGTGATGATATGGGATGTTGGTGGTAAATGTAACGTGGAGGAA
CAAGACATATGTAGGTACACTCCTTGACTGCACACGACATGATTGGGCACCCCCAAGGTTCTGTGACTCCCCGAC
CAGTGACCTGGAAATGCGCAATGGCCGGGGTAGAGGCAAACGCATGCGTCCCAACAGTAATACACCTGTCAATGA
GACAGCCACAGCCTCTGACAGCAAAGGGACCAGTAACAGCAGCAAAACCCGGGCAGGAGCCAATAGCAAAGGCCG
TCGGGGCAGCCAGAATTCTTCAGAGCACCGCCCACCTGCCAGCAGCACTTCTGAGGATGTCAAGGCCAGCCCTTC
CTCAGCTAATAAGCGGAAAAACAAACCCCTTTCAGACATGGAGCTGAATTCTAGCTCAGAGGACTCCAAAGGGAG
CAAGCGTGTCCGTACTAATTCCATGGGCTCAGCCACTGGCCCCCTTCTGGGACAAAGGTAGAACCCACTGTTCT
GGACAGAACTGCCCCCTCCCCCGTCCTAATTGACTGTCCCCACCCAACTGCAACAAGAAGTACAAGCACATCAA
TGGACTTAAGTACCACCAAGCTCATGCCCATACAGATGATGACAGCAAGCCGGAAGCGGATGGGGACAGTGAGTA
CGGAGAGGAACCTATTCTCCATGCAGATCTTGGGAGCTGCAACGGTGCATCTGTCTCACAAAAAGGTTCTTGTC
CCCTGCCCCGCTCAGCTACCCCCAAAGTTGACTTGTAGAGCCCCATAGCCCTTCTCCTTCAAGCAAATTCAGCAC
AAAAGGCCTCTGTAAGAAAAAGTTGAGTGGGGAAGGGACACAGACCTTGGGGCCTTATCCAATGATGGCTCTGA
TGATGGACCCTCAGTGATGGATGAAACAAGCAATGATGCCTTTGATTCTTTAGAAAGGAAGTGTATGG

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FIGURE 4212

MIGH PQSVTPRPVTWKCAMAGVEANACVPTVIHL SMRQPQLTAKGPVTAAKPGQEP IAKAVGAARILQST AHL
PAALLRMSRPALPQLISGKTNPFTWS

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FIGURE 4213

CTCTCTCCGGTCCGTGCCTCCAAGATGACAAAGAAAAGAAGGAACAATGGTCGTGCCAAAAGGGCCGCGGCCAC
ATGCAGCCTATTGCTGCACTAACTGTGCCCCGATGCGTGCCCAAAGACAAGGCCATTAAGAAATTGTCATTCTGA
AACATAGTGGAGTCCGCAGCAGTCAGGGACATTTCTGAAGCGAGCGTCTTCGATGCCTATGTGCTTCCCAAGCTG
TATGTGAAGCTGCATTACTGTGTGAGTTGTGCAATTCACAGCAAAGTAGTCAGGAATCGATCTCGTGAAGCCCGC
AAGGACCGAACACCCCCACCCCGATTTAGACCTGCGGGTGCTGCCCCACGTCCCCACCAAAGCCCATGTAAGGA
GGTGAGTTCTTAAAGACTGAAGACAGGCTATTCTCTGGAGAAAAATAAAATGGAAATTGTACTT

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FIGURE 4214

GTGAAACACCCTCGGCTGGGAAGTCAGTTCGTTCTCTCCTCTCCTCTCTTGTGTTGAACATGGTGCGGACTAA
AGCAGACAGTGTTCAGGCACCTTACAGAAAAGTGGTGGCTGCTCGAGCCCCCAGAAAGGTGCTTGTTCTTCCAC
CTCTGCCACTAATTCGACATCAGTTTCATCGAGGAAAGCTGAAAATAAATATGCAGGAGGGAACCCCGTTTGCCT
GCGCCCAACTCCCAAGTGGCAAAAAGGAATTGGAGAATTCTTTAGGTTGTCCCCTAAAGATTCTGAAAAAGAGAA
TCAGATTCCTGAAGAGGCAGGAAGCAGTGGCTTAGGAAAAGCAAAGAGAAAAGCATGTCCTTTGCAACCTGATCA
CACAAATGATGAAAAAGAAATAGAACTTCTCATTTCATCTTTGAATAACGTCTCCTTGTTTACCCTGGTATTCTAG
AATGTAAATTTACATAAAATGTGTTTGTTCCAATTAGCTTTGTTGAACAGGCATTTAATTAAAAAATTTAGGTTTA
AATTTAGATGTTCAAAAGTAGTTGTGAAATTTGAGAATTTGTAAGACTAATTATGGTAACCTTAGCTTAGTATTCA
ATATAATGCATTGTTTGGTTTCTTTTACCAAATTAAGTGCTAGTTCTTGCTAAAATCAAGTCATTGCATTGTGT
TCTAATTACAAGTATGTTGTATTTGAGATTTGCTTAGATTGTTGTACTGCTGCCATTTTTATTGGTGTGTTGATTA
TTGGAATGGTGCCATATTGTCACCTCTTACTTGCTTTAAAAAGCAGAGTTAGATTTTTGCACATTAAAAAATT
CAGTATTAATT

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FIGURE 4215

MVRTKADSVPGTYRKVVAAARAPRKVLGSSTSATNSTSVSSRKAENKYAGGNPVCVRPTPKWQKGIGEFFRLSPKD
SEKENQIPEEAGSSGLGKAKRKACPLQPDHTNDEKE

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FIGURE 4216

AATATGGTGCTAAAAGAACTCCTTACCTTTCTCTGACTACAATTTATTTGGACATACTTTTGTATTGAAGAGAGG
TATACATACTGAAGCTACTTGCTGTACTATAGGAGACTCTGTCTGTAGGATCATGGACCATCCTAGTAGGGAAA
AGGATGAAAGACAACGGACAATAACCCATGGCACAAAGGAGTGCACACTGCTCTCGACCATCTGGCTCCTCAT
CGTCTCTGGGGTTCTTATGGTGGGACCCAACCTCAGGGTTGGCAAGAAGATAGGATGTGGGAACCTTCGGAGAGC
TCAGATTAGGTAAAAATCTCTACACCAATGAATATGTAGCAATCAAACCTGGAACCAATAAAATCACGTGCTCCAC
AGCTTCATTTAGAGTACAGATTTTATAAACAGCTTGGCAGTGCAGGTGAAGGTCTCCACAGGTGTATTACTTTG
GACCATGTGGGAAATATAATGCCATGGTGTCTGGAGCTCCTTGGCCCTAGCTTGGAGGACTTGTGTTGACCTCTGTG
ACCGAACATTTACTTTGAAGACGGTGTAAATGATAGCCATCCAGCTGCTTTCTCGAATGGAATACGTGCACTCAA
AGAACCTCATTTACCGAGATGTCAAGCCAGAGAACCTTCTGATTGGTCGACAAGGCAATAAGAAAGAGCATGTTA
TACACATTATAGACTTTGGACTGGCCAAGGAATACATTGACCCCGAAACCAAAAAACACATACCTTATAGGGAAC
ACAAAAGTTTAACTGGAAC TGCAAGATATATGTCTATCAACACGCATCTTGGCAAAGAGCAAAGCCGGAGAGATG
ATTTGGAAGCCCTAGGCCATATGTTTCATGTATTTCTTCGAGGCAGCCTCCCCTGGCAAGGACTCAAGGCTGACA
CATTAAAAGAGAGATATCAAAAAATTGGTGACACCAAAAGGAATACTCCCATTGAAGCTCTCTGTGAGAACTTTC
CAGAGGAGATGGCAACCTACCTTCGATATGTGAGGCGACTGGACTTCTTTGAAAAACCTGATTATGAGTATTTAC
GGACCCTCTTCACAGACCTCTTTGAAAAGAAAGGCTACACCTTTGACTATGCCTATGATTGGGTTGGGAGACCTA
TTCCTACTCCAGTAGGGTCAGTTCACGTAGATTCTGGTGCATCTGCAATAACTCGAGAAAGCCACACACATAGGG
ATCGGCCATCACAAACAGCAGCCTCTTCGAAATCAGAGCCTTAGGACTGTTACAGCTGAGCATTATGATGTTAACA
ACTCAGCCATCTGGCACAGGGGAAGAGGCACCTAAACAGATTCTTCTGGACAAAAGTCACATATGAGCAAGATCA
GAATAGTAGCAGATGTAAAAAGCAGAATGTATCATCAGAGCGCCGAGGAGAGTGGGAAATTCAGCCAGCCGGCA
GACCAATACCTCATACCTAACGTCTCACTTGGCTGCAGACCGCCATGGGGGATCAGTGCAGGTGGTTAGCTCAAC
CAATGGAGAGCTGAATGTTGATGATCCACGGGAGCCCACTCCAATGCACCAATCACAGCTCATGCCGAGGTGGA
GGTAGTGGAGGAAGCTAAGTGCTGCTGTTTCTTTAAGAGGAAAAGGAAGAAGACTGCTCAGCGCCACAAGTGACC
AGTGCCTCCCAGGAGTCTCAGGCCCTGGGGACTCTGACTCAATTGTACCTGCAGCTCCTGCCATTTCTCATTGG
AAGGGACTCCTCTTTGGGGGAGGGTGGATATCCAACTAAAAAGAAGAAAACAGATGCCCCAGAAGGGGCCAGT
GCGGGCAGCCAGGGCCTAGTGGGTCAATTGGCCATCTCCGCCTGCCTAAGGCTCTGAGCAGGTCCCAGAGCTGCTG
TTCCTCCACTGCTTGCCCATAGGGCTGCCTGGTTGACTCTCCTTCCCATTGTTTACAGTGAAGGTGTCATTACACA

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FIGURE 4217

MDHPSREKDERQRTTKPMAQRSACSRPSGSSSSSGVLMVGNFRVGGKIGCGNFGELRLGKNLYTNEYVAIKLE
PIKSRAPQLHLEYRFYKQLGSAGEGLPQVYFYGPCGKYNAMVLELLGPSLEDLFDLCDRTFTLKTVLMIAIQLLS
RMEYVHKNLIYRDVKPENFLIGRQGNKKEHVIHIIDFGLAKEYIDPETKKHIPYREHKSLTGARYMSINTHLG
KEQSRDDLEALGHMFMYFLRGSLPWQGLKADTLKERYQKIGDTKRNTPIEALCENFPEEMATYLRVRRLDFFE
KPDYEYLRFTLFDLFEKKGYTFDYAYDWVGRPIPTVGSVHVDSGASAITRESHTHDRPSQQQLRNQSLRTVT
AEHYDVNNSAIWHRGRGT

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FIGURE 4218

GGCACGAGGACGGCGCCCGCCGCCCGCCGGAGCCCGCGAGCAACCCCAAGTCCCCCCCCACCCGCGCGTGGCGGGCG
CCGGCTCCCTAGCCACCGCGGCCCCACCCTCTTCCGGCCTCAGCTGTCCGGGCTGCTTTCGCCTCCGCCTGTGGA
TGCTGCGCCTCTCCGAACGCAACATGAAGGTGCTCCTTGCCGCCGCCCTCATCGCGGGGTCCGTCTTCTTCTGC
TGCTGCCGGGACCTTCTGCGGCCGATGAGAAGAAGAAGGGGCCCAAAGTCACCGTCAAGGTGTATTTGACCTAC
GAATTGGAGATGAAGATGTAGGCCGGGTGATCTTTGGTCTCTTCGGAAAAGACTGTTCCAAAAACAGTGGATAATT
TTGTGGCCTTAGCTACAGGAGAGAAAAGGATTTGGCTACAAAAACAGCAAATTCCATCGTGTAATCAAGGACTTCA
TGATCCAGGGCGGAGACTTCACCAGGGGAGATGGCACAGGAGGAAAGAGCATCTACGGTGAGCGCTTCCCCGATG
AGAACTTCAAACCTGAAGCACTACGGGCCTGGCTGGGTGAGCATGGCCAACGCAGGCAAAGACACCAACGGCTCCC
AGTTCTTCATCACGACAGTCAAGACAGCCTGGCTAGATGGCAAGCATGTGGTGTTTGGCAAAGTTCTAGAGGGCA
TGGAGGTGGTGCGGAAGGTGGAGAGCACCAGACAGACAGCCGGGATAAACCCCTGAAGGATGTGATCATCGCAG
ACTGCGGCAAGATCGAGGTGGAGAAGCCCTTTGCCATCGCCAAGGAGTAGGGCACAGGGACATCTTCTTTGAGT
GACCGTCTGTGCAGGCCCTGTAGTCCGCCACAGGGCTTTGAGCTGCACTGGCCCCGGTGCTGGCATCTGGTGGAG
CGGACCCACTCCCCTCACATTCCACAGGCCCATGGACTCACTTTTGTAACTAACTCCTACCAACCCTGACCAATA
AAAAAAATGTGGGTTTTTTTTTTTTTTTAAATAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 4219

MLRLSERNMKVLLAAALIAGSVFFLLLPGPSAADEKKKGPKVTVKVYFDLRIGDEDVGRVIFGLFGKTVPKTVDN
FVALATGEKGFYKNSKFHRVIKDFMIQGGDFTRGDGTGKSIYGERFPDENFKLKHYPGWVSMANAGKDTNGS
QFFITTVKTAWLDGKHVVFGKVLEGMEVVRKVESTKTDSRDKPLKDVIIADCGKIEVEKPFIAIAKE

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FIGURE 4220

TGCCTTTCGCTGCTTGTTGGGGTTACAGGTGAAGGGTTATGGGGTGAAGAACAACCCAGGGCCAGCGCTTGGCC
TCCCCGCCACCGTGGCGGCCGCCCGCGCTGCTGTGAGGCGCCAGTTCCGGGGCGCTGCTCCCCGCCCTCCCCTC
GCTCTGAGGCTCGGGGTCCCCAGCTCCGCGTAAACTGCACGATTTTCGCCCTCTGCTCAGCTCCCCCTCTGCCCCCT
CTTTCCAAGAGAGACTTCCAGATCCCACATTTTCTTGACTGATTTTAAAGCATTTCCTCGTTTATAGCTGTCTGT
TTGCAATTCGATTGGGAACACTGGGATCATTTTCATCATGCCGACAGTGGTGGTAATGGATGTATCCCTTTCCAT
GACCCGACCTGTGTCTATTGAGGGGTCCGAGGAATACCAGCGTAAGCACCTAGCAGCCCATGGTTTAACGATGCT
GTTTGAGCACATGGCCACAAATTACAAGCTTGAATTTACAGCACTTGTGGTTTTTTCATCACTTTGGGAGTTGAT
GGTCCCCCTTACAGAGAGATTATAATACCTACAGGAAGCACTAAGTAATATGGATGATTATGACAAAACCTGCTT
GGAGTCTGCATTAGTTGGTGTGTGCAATATCGTTACAGCAAGAATGGGGTGGTGCAATTCCTTGCCAGGTTGTCTT
GGTGACAGACGGCTGTCTTGGCATTGGTAGAGGGTCACTGCGACATTCCCTAGCCACTCAAAATCAACGAAGTGA
GAGCAACAGGTTTCCACTACCTTTTCCCTTTCCCATCTAAGTTATATATCATGTGCAATGGCGAATTTGGAGGAGCT
CCAGAGCACCGATTCCCTTGGGAATGCCTTGAACGCTCTCATAGATTTAAACAATGGTGAAGGGCAGATTTTTACTAT
TGATGGCCCCCTGTGCTTGAAGAATGTACAGTCTATGTTTGGAAAACCTGATAGATTTGGCATATACGCCCTTTCCA
TGCTGTTCTCAAGTGTGGCCACCTAACTGCTGATGTACAAGTCTTCCCCAGGCCAGAACCTTTTGTGTAGATGA
AGAAAATTGATCCTATCCCTAAAGTCATTAAACACAGATTTGGAAATAGTGGGATTTATTGATATAGCTGATATTTT
AAGTCCCCCAGTTCTGTCCAGACATCTGGTCTTACCTATAGCACTTAACAAAGAAGGTGATGAGGTGGGTACTGG
CATCACTGATGACAATGAAGATGAAAATTCAGCCAATCAGATTGCAGGCAAAATACCCAACCTTTTGTGTCTGTCT
CCATGGTAGCCTAAAAAGTGAAGGAATGGTAGCGATTGTTCAATTAGGTCTGAATGGCATGGAATGCTCTACTC
CCAAGCTGACAGCAAGAAGAAAATCAAAACXTCATGATGTCTCTCTTTGAGCCTGGCCAGAACCTCTCCCATGGC
TAGGGAAAAATGGCACAGTTGGGTCTATTTTCCAGATGCTAAAGAAAACCTTATGGCGAGGATGACAATAAGAGTC
CATTCCCCCTGCAGCCCCAAAAACAAACGCAGTTATGCCAGAAATGTGACTGTCTGGATCAAACCCAGCGGCTGC
AGACAGATGTACAGAAGATTTTAAAGAAATGCAAGGAACTACCTGAAAAAACACAGACATTCTATAAGGAGCTGA
ACCGTTTGGCAAAGGCCGCTCTAGCCTTTGGTTCCTGGACCTGCTGAAAGGGGTGGCTGACATGCTGGAAAGGG
AATGCACACTGCTGCCTGAGACAGCCACCTGATGCTGCATTCCAGCTGACCCATGCTGCCAGCAGCTCAAGC
TGGCCAGTACCGGCACCTCTGAGTATGCCGCTTATGACCAGAACATCACACCTTTGCACACGGACTTCTCTGGGA
GCAGCACTGAAAGAATTTGAAACTGACTTTTGGAGCTTTCTTCTTTTTTTCATTTCAACTGAAATGCTTTAGGT
AAAAACCTTTCCAGTATGTTTACCTCTAGAATAGCCACCCAAAGACCTTCTGAGGCTGCCTCAGAAGCACCCT
TGCTGTTTTGAATGACTCTACTAGTATGAGAAGGATGTGAAGGTGGTTGGCTGGTTGGGCTTTAACTTCTGGGA
TTCATAATTTTTAAGCTTGAAGATAGCTGCTGTTCCCATGATGGGCACATTTCTGAGAAGCTTGAATGACTGA
TGAGCATAGAGACCCCTGCCTTCTCAGGAAACCTGACCGGCAGGGGCTCTCTGGCTTCTGAAAGCTTACCT
CTTCCCTCGTTTATATCTCAACTGTAAGGGCATTTTCAAGCTTCTGTTTATGGAATGAGCAACTCAGACTGTCTG
GAGCTTGCTGAGTACAAACACACCACCTAAGTTTCAAGACTTTCTTAGAACTTGGGCAAAATGTGGTGGTAA
CTCTTAAGTGCTTTTGGTATCTCTTGAGATTCTAACTTTTAAAGAGCAACCATTAAATGTGTAAATGATTCCTAT
TATTCAAGGTTTTTTTTTAATGAAAATAAAATATTTGATTTCTAG

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FIGURE 4221

GAGCGTGGGGTATCTCGAGGTGCCGGGTGCGAGGCGCTCAGGAGCGCTAGGGTTTGAGGCCTGCTTTCTGCTCGC
GCCAGCAGAGCACTACCTGAGGCAGCGAGGCGCAGCGAGCCTAGCCTCCCCGCGCCCTGGGCAGTGTGGCCATGG
AGAATCAGGTGTTGACGCCGCATGTCTACTGGGCTCAGCGACACCGCGAGCTATATCTGCGCGTGGAGCTGAGTG
ACGTACAGAACCCTGCCATCAGCATCACTGAAAACGTGCTGCATTTCAAAGCTCAAGGACATGGTGCCAAAGGAG
ACAATGTCTATGAATTTACCTGGAGTTCTTAGACCTTGTGAAACCAGAGCCTGTTTACAAACTGACCCAGAGGC
AGGTAAACATTACAGTACAGAAGAAAGTGAGTCAGTGGTGGGAGAGACTCACAAAGCAGGAAAAGCGACCACTGT
TTTGGCTCCTGACTTTGATCGTTGGCTGGATGAATCTGATGCGGAAATGGAGCTCAGAGCTAAGGAAGAAGAGC
GCCTAAATAAACTCCGACTGGAAAGCGAAGGCTCTCCTGAAACTCTTACAACTTAAGGAAAGGATACCTGTTTA
TGATAATCTTGTGCAATTCCTGGGATTCCTGGATCTTTGTCAACCTGACTGTGCGATTCTGTATCTTGGGAA
AAGAGTCCTTTTATGACACATTCCATACTGTGGCTGACATGATGTATTTCTGCCAGATGCTGGCAGTTGTGGAA
CTATCAATGCAGCAATTGGAGTCACTACGTACCGGTGCTGCCTTCTCTGATCCAGCTTCTTGGAAGAAATTTTA
TTTTGTTTATCATCTTTGGCACCATGGAAGAAATGCAGAACAAAGCTGTGGTTTTCTTTGTGTTTTATTTGTGGA
GTGCAATTGAAATTTTCAGGTACTCTTTCTACATGCTGACGTGCATTGACATGGATTGGAAGGTGCTCACATGGC
TTCGTTACACTCTGTGGATTCCCTTATATCCACTGGGATGTTTGGCGGAAGCTGTCTCAGTGATTGAGTCCATTC
CAATATTCAATGAGACCGGACGATTCAGTTTCACATTGCCATATCCAGTGAAAAATCAAAGTTAGATTTTCTTTT
TTCTTCAGATTTATCTTATAATGATATTTTATAGGTTTATACATAAATTTTCGTACCTTTTATAAACAGCGCAGAC
GGCGCTATGGACAAAAAAGAAAAAGATCCACTAAAAAGAAAGATTTAGATGGCTTCTTGCCAGTTTGAGCCTAA
TCTGATTCTTACAGTTTACCTTCTTGAACCAATGTAAAAGTTTTTTTAAATGTTAAATGATTAAATTCTCAGTGA
GGCTATCTTCTTTTCCCCAGTAACATTCCCTGAATTTACTGTTATCTTATTGTAGTACTTGATGACATGGATTTC
CTGATATCTGATGAGAGGTTTCTTGTGTATTGAGTTAATGACACCAAAGGCTCAGCCACCCCAACCCTAT
CTCATGTTGAGTCTGTCTAATACATGCCAGAGATTTTTTTTTTCAAAAAGTGCTTTATCCCTACAATGTACTGACA
GTTCTTACAGTTGAGATTTGTTCTTTTCAGCTATTGCTTGTGAAAAAAGCAAGACTATGTCACTCTATAGAAGG
CTGTTAAAGTGACTCAGGCA

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FIGURE 4222A

GGCACGAGGTCACCTGCCGTCCAGGTATCATCTAGTCTTCCCTCCGTCTCTGGGATGGGAACTCTTGTCTAGT
GATGTGACTCATTACGTGATCCCAGACTGGAAAGTTGTTCAAGATTATCTTGAGATCCTTGAGTTTCCTGAGTTG
AAGGGAATTATTTTCATGCAGACAGCTTGTCAAGCTGTGCAGCATCAAAGAGGCAGGAGACAGTATAACAACTG
CGAAACCTGCTGAAGGATGCGCGTCATGATTGCATTCTCTTTGCTAATGAATTCCAGCAATGCTGCTATCTGCCA
CGGGAAAGAGGAGAGTCCATGGAGAAGTGGCAGACCAGGAGCATATACAACGCAGCTGTTTGGTACTATCATCAC
TGCCAGGACAGGATGCCAATTGTTATGGTGACAGAAGATGAAGAGGCAATTCAGCAGTATGGAAGTGAAACAGAA
GGAGTATTCGTGATTACTTTCAAGAATTACCTGGACAATTTCTGGCCTGATTTAAAGCTGCCACGAGCTTTGT
GATTCTATCCTTCAGTCTCGACGGGAGAGAGAGAATGAGAGTCAGGAGAGCCATGGGAAGGAGTACCCAGAACAT
CTTCCCTGGAAGTGTTAGAAGCTGGGATTAAATCTGGACGCTATATCCAGGGAATTCTGAATGTCAACAAACAC
AGAGCCCCAAATAGAAGCTTTTGTTCGACTTCAAGGAGCCAGCAGTAAAGATTGAGATTTAGTCAGTGACATCCTA
ATCCACGGGATGAAGGCTCGAAACCGCTCAATTCATGGAGATGTGGTAGTTGTGGAGCTGCTTCCATAAAATGAA
TGGAAGGAAGAACCCTAGCCCTGTGTGAGAATGACTGTGACGACAAGGCTTCGGGCGAGTCCCCAAGTGAGCCC
ATGCCTACAGGTCGAGTGGTGGGCATACCTTCAGAAGAACTGGCGGGATTATGTGGTGACATTTCCGTCCAAAGAA
GAGGTCCAATCTCAGGGCAAAAATGCTCAGAAAATCCTGGTTACACCTTGGGATTACAGAATTCCTCAAAATTCGA
ATTAGCACTCAGCAAGCAGAAACCTCCAGGACTTCAGGGTGGTCTGTCGCATCGATTCTGGGAGTCAACATCT
GTGTATCCAAACGGACATTTTGTGCGTGTTTTAGGAAGAATCGGAGATCTGGAAGGGGAAATTGCAACCATCCTG
GTGGAAAACAGTATTTTCAAGTATTCTTTCTCAGAAGCTCAGATGTGTGAGATGCCAGTAAACACACCAGAAAGT
CCCTGGAAGGTGAGTCTGAAGAGGAACAAAACGTAAGACTTGAGGAAAAGCCATCTCGTATTTCAGCATTGAC
CCCAAAGGTTGTGAAGATGTGGATGACACACTCTCAGTCAGAACCTTAAATAATGGCAACCTGGAACCTGGGGTC
CACATCGCAGATGTAACACACTTTGTGGCACCAATTTCTTACATTGATATTGAAGCTAGAACAAGGGCCACCACT
TATTATCTAGCAGATCGTCGCTATGACATGCTGCCTTCCGTCTCAGTGCAGATTTGTGTTCCCTTCTGGGAGGC
GTTGATAGGTATGCTGTAAGCATCATGTGGGAAGTGGATAAAGCCTCTTATGAAATTAAGAAAGTGTGGTATGGC
AGAACCATTATTCGATCAGCATACAACTGTTCTATGAAGCAGCCCAAGAACTACTGGATGGAACTTAAGCGTT
GTTGATGATATTCCAGAATTCAAAGACTTGGATGAGAAGAGCAGACAAGCCAAGCTGGAGGAGTTGGTGTGGGCA
ATTGGAAGCTGACCGACATAGCTCGCCATGTCAGAGCTAAACGAGACGGATGTGGTGCCCTGGAAGTGGAAAGG
GTAGAGGTTTGCCTACAGCTAGATGACAAAAGAACATTACAGACCTCATCCCCAAGCAGCCCTGGAAGTCCAC
GAGACAGTGGCTGAATGCATGATCCTGGCCAACCACTGGGTGCGCCAAAAGATCTGGGAGAGCTTCCCTCATCAG
GCCTTGCTGCGCCAGCACCTCCTCCACACCAGGAGTTCTTTTCAGAACTCCGGGAATGTGCTAAAGCCAAAGGC
TTCTTCATAGATACAGGTCCAATAAAACACTGGCTGATTCTCTGGATAATGCGAACGACCCCCACGATCCCATT
GTGAACAGGCTACTGCGCTCCATGGCCACGCAGGCCATGTGCAATGCTCTGTACTTCTCCACCGGATCCTGTGCG
GAGGAGGAGTTCCATCATTACGGTCTTGCAATTAGATAAATATACCCACTTTACTTCTCCAATAAGAAGATATTCA
GATATTGTAGTACACCGCTTGTTAATGGCAGCCATTTCAAAGATAAGAAAATGGAATTAAGGGAAATCTGTTT
AGCAACAAAGATCTTGAGGAATTATGCAGACATATCAACAACAGAAACCAAGCAGCACAGCATTCTCAGAAGCAG
TCTACTGAGCTCTTCCAGTGCATGTACTTCAAAGACAAAGACCCTGCCACCGAGGAGCGTTGCATATCTGACGGA
GTTATTTATTCAATTAGAACAATGGTGTGCTTCTATTATACCAAGGTTTGGGATTAAAGGTGCTGCTTATCTA
AAAAATAAAGATGGTTTGTAGTCATCTCATGTGGCCAGATAGCTGTTCTGAATGGAACCAGGATCCCTTCAACGA
TTTCAAACAAAATTACCTCTACTACAACAGATGGGGAATCTGTTACGTTCCATTTGTTTGACCATGTAACCGTA
AGAATATCCATACAGGCCTCACGTTGCCATTCTGATACAATCAGACTTGAAATAATTAGTAACAAACCATAACAAG
ATACCAAAATACAGAACTTATTCATCAGAGTTCCCTTGTCTGAAGAGTGAGTTAGTGAAAGAAGTAACATAATCT
GTGGAAGAAGCTCAGCTTGCCCAAGAAGTCAAAGTAAACATCATTACAGGAGGAATATCAAGAATATCGCCAAACA
AAGGGAAGGAGCCTATACACACTTCTAGAGGAGATACGGGACCTAGCTCTCTCTGGATGTTTCAAACAATTATGGA
ATATGAGAGGCTCTTACTTCACTAAGAGCTGTCTATGTGAATGTTTTACAGTCTTTTCAAACCTAACATTTAAT
GTGTGTCACTCAGTGCTCTAGTCGATCAGGACTGGGTAGCTATTTTCGCATATATGTAAATGTTCTCAGCCGGGC
ACGGTGGCTCACGCTGTAACCCACGCACTTTGGGAGGCTGAGGCGGGCGGATCACGAGGTGAGGAGATTGAGAC
CATCCTGGCTAACACGGTGAAACCCAGTCTCTACTAAAAATACAAAAATTAGCCCGGCGTGGTGGCATGCGCCTG
TAGTCCCAGCTACTTGGGAGGCTGAAGCAGGAGAATTGCCTGAACCCAGGAAGAGGAGGTTGCAGTGAGCCGAGA
TCGCACCACTGCATTCCAGCCTGGGCAACAGAGCGAGACTCCATCTCAAAAAAAAAAAAAAAAAAAAAAGTT
CTCTCATTCATTAAAGTTGCATTAAATAAAGTATAATTAGGTCACTATGGAACAGTTTTTCAGTAATGAGTGGAC

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FIGURE 4222B

AGTAAGTGGTGGCTCTGCAGATGGCCCCTTTCTAATAAGTTAATAAACCCGAAATTACTGTTAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAA

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FIGURE 4223

MQTACQAVQHQRGRQYNKLRNLLKДАРHDCILFANEFQCCYLPRERGESMEKWQTRSIYNAAVWYYHHCQDRM
PIVMVTEDEEAIQQYGSETEGVFVITFKNYLDNFWPDLKAAHELCDLSILQSRRERENESQESHGKEYPEHLPLEV
LEAGIKSGRYIQGILNVNKHRAQIEAFVRLQGASSKSDLVSDILIHGMKARNRSIHGDVVVVELLPKNEWKGRT
VALCENDCDDKASGESPEMPMTGRVVGILQKNWRDYVVTFPSKEEVQSQGKNAQKILVTPWDYRIPKIRISTQQ
AETLQDFRVVVRIDSWESTSVYPNGHFVRVLGRIGDLEGEIATILVENSISVIPFSEAQMCEMPVNTPESPWKVS
PEEEQKRKDLRKSHLVFSIDPKGCEVDVDTLSVRTLNNGNLELGVHIADVTHFVAPNSYIDIEARTRATTYYLAD
RRYDMLPSVLSADLCSLLGGVDRYAVSIMWELDKASYEIKKVWYGRTIIRSAYKLFYEAQELLDGNLSVDDIP
EFKDLDEKSRQAKLEELVWAIGKLTDIARHVRAKRDGCGALELEGVEVCVQLDDKKNIHDLIPKQPLEVHETVAE
CMILANHWVAKKIWESFPHQALLRQHPPPHQEFFFSELRECAKAKGFFIDTRSNKTLADSLDNANDPHDPIVNRLL
RSMATQAMSNALYFSTGSCAEFEFHHYGLALDKYTHFTSPIRRYSDIVVHRLLMMAISKDKKMEIKGNLFSNKDL
EELCRHINNRRNQAQHSQKQSTELFQCMYFKDKDPATEERCISDGVIIYSIRTNGVLLFIPRFGIKGAAYLKNKDG
LVISCGPDSCEWKPGSLQRFQNKITSTTTDGESVTFHLFDHVTVRISIQASRCHSDTIRLEIISNKPYPKIPNTE
LIHQSSPLLKSELVKEVTKSVEEAQLAQEVKNIIQEYQEYRQTKGRSLYTLLEEIRDLALLDVSNNYGI

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FIGURE 4224

GAACCGCCCCGCGCTGGGAATTTGCGGCGGCCTCCGCCGGGGCAGCCGAGCTGAACCGGTCTCTTCCTCGGAAAG
GCAGGGCCGAGGGGCTGCGGGGCAGCCATGGAGGCGACGCGGAGGCGGCAGCACCTGGGAGCGACGGGCGGCCC
AGGCGCGCAGCTGGGCGCCTCCTTCCTGCAGGCCAGGCATGGCTCTGTGAGCGCTGATGAGGCTGCCCGCACGGC
TCCCTTCCACCTCGACCTCTGGTTCTACTTCACACTGCAGAACTGGGTTCTGGACTTTGGGCGTCCCATTGCCAT
GCTGGTATTCCCTCTCGAGTGGTTTCCACTCAACAAGCCAGTGTGGGGACTACTTCCACATGGCCTACAACGT
CATCACGCCCTTTCTCTTGCTCAAGCTCATCGAGCGGTCCCCCGCACCCCTGCCACGCTCCATCACGTACGTGAG
CATCATCATCTTCATCATGGGTGCCAGCATCCACCTGGTGGGTGACTCTGTCAACCACCGCCTGCTCTTCAGTGG
CTACCAGCACCACTGTCTGTCCGTGAGAACCCCATCATCAAGAATCTCAAGCCGGAGACGCTGATCGACTCCTT
TGAGCTGCTCTACTATTATGATGAGTACCTGGGTCACTGCATGTGGTACATCCCCTTCTTCCTCATCCTCTTCAT
GTACTTCAGCGGCTGCTTTACTGCCTCTAAAGCTGAGAGCTTGATTCCAGGGCCTGCCCTGCTCCTGGTGGCACC
CAGTGGCCTGTACTACTGGTACCTGGTCACCGAGGGCCAGATCTTCATCCTCTTCATCTTCACCTTCTTCGCCAT
GCTGGCCCTCGTCCTGCACCAGAAGCGCAAGCGCCTCTTCCTGGACAGCAACGGCCTCTTCCTCTTCTCCTCCTT
CGCACTGACCCCTCTTGCTTGTGGCGCTCTGGGTGCGCTGGCTGTGGAATGACCCTGTTCTCAGGAAGAAGTACCC
GGGTGTCTCTACGTCCCTGAGCCCTGGGCTTTCTACACCCTTTCAGTCAGCAGTCGGCACTGAGTCCCTGGCAC
CAGGCTCTGGCGCTCTGCTGGGTGGGAGGGTGGGCCATGGAGGGCATCTGAATACAGGAGTAGGGGGGTGTGGG
TGTGTAACCAGAGACCGAGAGCATGAGTGGGGTGTGCCTCGTGTGCGTGGATTCTGTGTGTGTGTGTGTCTTGT
ATATGTGTGCGCAGAGTGCATCATTTTCAGACTCTACTATTTCCGTCAAGTTTCTGTTTGATTGGATCATCTCA
GGATCGGATTCTGTTTTAGAGTGTCTGGGCCAGGATCCGGGGCCCTGCCCTCCTCTGCACCTGACCACACTCC
CTACTCAGGGCTAGTCTGTTCTTCCCGACATCTTCTGGTAGCCGTGCAGGAGAGGGCTGGGTGGGGCAGAGGCC
AGGAGGGGACCTGGTGTGTACCTGCCACCACTGGCTCATCCCTCAGGCCACCCCTGACCCTACATTACATAG
GTTACGTCAGCCTACTGTGGCTGTTGAGCAAAGCATTTCTCCTTTCTGGGCCTCATTGCACTAGATGGGCCTGT
GGTCCCAAAGTAGGTCAGTAGGTTGGGGTGTGCTGACACCCCTTGGGTGCAGCTTTGGGACAGATGAGTGGCTCTG
TCCTGTCACTGCCCTCTCCCTGCCTGGGGGCTATGTGCACTCCAGACCCCTGCCAGGCTCAGGCCCATGAGGTA
TGGAGACACCCCTGGCCCCCAGGAGCTGGAGGCACCGCCCACTCCCCTGGCATTCCAGCTTTGCAGGTGACCCTCC
TCTACCCAAAGCTCTGTCCCCCTGCTCCCACTCCAGAAGAACTGCGGCACGTGCTTCGGGCAGCCTAGCCACAGG
CTTTGAGCGCCTGCATTCTGGGGGCTGGAGGGTGGGGTGCCAAAGGCCCTGAGCAAAGCCAGAGCTCCTCTCA
TCAAAGCCTTTACAAGGTACTGGGCCAGAGGCTTTGCCTTGACAGAGTGGCCAGGGTTTCAAGGGAGGAGGAA
CCTCCCCCTACCTAGGACCTTCTGTGGGGGTCTACAGAGTCAGGGACAGAAGGGAAGGGACCCACAGGAAGT
CACAGTGGTGGCCAGGGATGTGTACCCCCAGCCACGGGGACGCGGGATTCAAGAATGAAGTAAATACAGTCAC
AGCCCCAAA

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FIGURE 4225

MEATRRRQHLGATGGPGAQLGASFLQARHGVSADAEARTAPFHLDLWFYFTLQNWVLD FGRPIAMLVFPLEWFP
LNKPSVGDYFHMAYNVITPFLLLKLIERSPRTLPRSITYVSIIIFIMGASIH LVGDSVNHRLLFSGYQHHL SVRE
NPIIKNLKPETLIDSFELLYYYDEYLGHCMWYIPFFLILFMYFSGCFTASKAESLIPGPALLLVAPSGLYYWYLV
TEGQIFILFIFTFFAMLALVLHQKRKRLFLDSNGLFLFSSFALTLLLVALWVAWLWNDPVL RKKYPGVIYVPEPW
AFYTLHVSSRH

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FIGURE 4226

GGCACGAGGCGCTCTTGC GGGAGCGTTCCGCATCGCCCCGGGGGCCCTACGCGAGGATCTCCGGGGCCGTTGGC
AGCGCCTGGCACTTCTGAGCTCGGCGGACGAGAGCCTGCAGGTTTCCTCCAGTCAGGGACGGCGAAGGGCGGAAA
GCGCAGGAGGAGGAGGAGTGTTAGGCCCTTAGGCCGGGTGGGCGGGTCAGGAGAGACGCGCCCATCTTTCGCCATCC
GGGGTGC GCGAGGTCTCTCGGGACCCGGCCGGCGACCCGTAGCTCGGGCACGCGCCTGTGCGATCCCGCAGGAA
GGAGGGGTCCGGCCTGAGGCCCGGGGCGGCGTCCGCCATGGAGATCCCTCGGTCCAGGGCCGGCGCCTGGGACC
TGGCGGGCGGCCCTGACCGCCTTCTCCCTGCGCGGGCTGGGTGCGGACGTGCCCTTCGCGGCACTCGGCCTCC
TCTGCGTCTCCGCCTTCCCTGGGCGGCACTGCTGCCTGGGCGCGGCGGCGGCGACGGCGCCCTGTTGAATGGGCT
GTGAGGGCCAGGTTTAAAGCGCTGGCGAACGCGGCCCTCCGGGGGCGCACGGCAGCTGCAGCGGTGGCGACCAAA
CGGGTGTGTGGAGTTGGCGGCGGCCATGGAGGGCCTGGCTGGCTATGTATACAAGCGGCCAGCGAGGGCAAGGTG
CTGACTCTGGCCGCCTTGCTTCTCAACCGGTCTGAAAGCGACATCCGCTATCTGCTTGGCTATGTCAGCCAGCAG
GGAGGGCAGCGCTCCACGCCCCCTCATCATCGCAGCCCGCAATGGACACGCAAAGGTGGTACGCTTGCTCTTAGAA
CATTACCGGGTGCAGACTCAGCAGACTGGCACCGTCCGCTTCGACGGGTATGTCATTGATGGTGCCACTGCTCTT
TGGTGTGCACTGGAGCAGGACATTTTGAAGTTGTTAACTTCTAGTCAGCCATGGAGCCAACGTGAACCATACC
ACAGTAACTAATTCAACCCCCCTGCGGGCAGCATGCTTGTATGGCAGACTGGACATTGTGAAATACTTGGTTGAA
AATAATGCCAACATCAGCATTGCCAACAAATATGACAACACCTGCCTAATGATTGCGGCATATAAGGGACACACT
GATGTGGTCAGATACCTTTTAGAACACGCTGCTGATCCCAATGCCAAAGCACATTGTGGAGCCACAGCATTGCAC
TTTGCAGCTGAAGCTGGGCACATAGATATTGTGAAAGAGCTGATAAAATGGCGTGCTGCTATAGTAGTGAATGGC
CATGGGATGACGCCATTGAAAGTAGCTGCCGAAAGCTGTAAAGCTGATGTCGTAGAACTGTTACTCTCTCATGCT
GATTGCGACCGAAGAAGTCGGATTGAAGCTTTGGAACCTTTGGGTGCCCTCCTTTGCAAATGACCGTGAGAACTAT
GACATCATAAAGACATAACCATATCTATATTTAGCCATGTTAGAGAGGTTCCAAGATGGTGATAACATTCTCGAA
AAAGAGGTTCTTCCACCAATCCATGCTTATGGGAATAGAACTGAATGTAGAAATCCTCAGGAACTGGAGTCCATT
CGGCAAGACAGAGATGCTCTTCATATGGAAGGCCTTATAGTTCGGGAACGGATTTTAGGTGCTGACAATATTGAT
GTTTCTCATCCCATCATTTACAGAGGAGCTGTTTATGCGGATAATATGGAATTTGAGCAGTGTATCAAGTTGTGG
CTTCATGCCCTGCACCTCAGACAAAAAGGTAACAGGAACACCCACAAGGATCTTCTTCGATTTGCTCAAGTTTTC
TCACAAATGATACATTTGAATGAAACTGTGAAGGCCCCAGACATAGAATGTGTTTTGAGATGCAGTGTTTTGGAA
ATAGAACAAAGTATGAACAGAGTGAAAAATATTTAGATGCTGATGTCCACAATGCTATGGACAATTATGAATGT
AATCTCTATACCTTTCTGTATTTAGTGTGCATCTTACCAAAACACAGTGCAGCGAAGAAGATCAGTGCAAAATT
AACAAGCAGATCTACAACCTGATTACCTTGATCCAGAACTCGTGAAGGTTTCACCTTGCTGCATCTGGCTGTC
AACTCCAATACTCCAGTTGATGATTTCCACACCAATGACGTCTGCAGCTTTCCAAATGCAC TTGTCACAAAGCTC
CTGCTGGACTGTGGTGCTGAGGTGAATGCCGTGGACAATGAGGGAAACAGTGCCCTTCATATTATCGTTCAGTAC
AACAGGCCCATCAGTGATTTTTTGACCTTGCACCTCCATCATCATTAGCCTAGTTGAAGCCGGAGCTCACACTGAC
ATGACGAATAAACAGAATAAGACTCCGCTAGACAAAAGTACAACCTGGGGTATCTGAAATACTGCTTAAAAC TCAA
ATGAAGATGAGTCTCAAGTGCTGGCTGCCCGAGCAGTTCGGGCTAATGACATTAAC TACCAAGACCAGATCCCC
AGAACTCTTGAAGAGTTTGTTGGATTTCAATTAAGTGAAGTGGATATGTAAAGTCGTTTAAATGTGGTGCTAAAAAGT
AAAGGACTTTTAAATCACAAAAA AAAAAAAAAAAAAAAAAAAAAA

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FIGURE 4227

MEGLAGYVYKAASEGKVLTLAALLLNRSSEDIRYLLGYVSQQGGQRSTPLIIAARNGHAKVVRLILLEHYRVQTQQ
TGTVRFDGYVIDGATALWCAAGAGHFEVVKLLVSHGANVNHTTVTNSTPLRAACFDGRLDIVKYLVENNANISIA
NKYDNTCLMIAAYKGHTDVVRYLLEQRADPNKAHCGATALHFAAEAGHIDIVKELIKWRAAIVVNGHGMTPLKV
AAESCKADVVELLSHADCDRRSRIEALLEGASFANDRENYDIKTYHYLYLAMLERFQDGDNIKEVLPPIH
AYGNRTECRNPQELESIRQDRDALHMEGLIVRERILGADNIDVSHPIIYRGAVYADNMEFEQCIKLWLHALHLRQ
KGNRNTHKDLLRFAQVFSQMIHLNETVKAPDIECVLRCSVLEIEQSMNRVKNISDADVHNAMDNYECNLYTFLYL
VCISTKTQCSEEDQCKINKQIYNLIHLDPRTRREGFTLLHLAVNSNTPVDDFHTNDVCSFPNALVTKLLLDCAEV
NAVDNEGNSALHIIVQYNRPISDFTLHSIIISLVEAGAHTDMTNKQNKTPLDKSTTGVS EILLKTQMKMSLKCL
AARAVRANDINYQDQIPRTLEEFVGFH

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FIGURE 4228

CCTTTCCTCAGCTGCCGCCAAGGTGCTCGGTCTCTCCGAGGAAGCTAAGGCTGCGTTGGGGTGAGGCCCTCACTT
CATCCGGCGACTAGCACCGCGTCCGGCAGCGCCAGCCCTACACTCGCCCGCGCCATGGCCTCTGTCTCCGAGCTC
GCCTGCATCTACTCGGCCCTCATTCTGCACGACGATGAGGTGACAGTCACGGAGGATAAGATCAATGCCCTCATT
AAAGCAGCCGGTGTAATGTTGAGCCCTTTTGGCCTGGCTTGTTTGCAAAGGCCCTGGCCAACGTCAACATTGGG
AGCCTCATCTGCAATGTAGGGGGCCGGTGGACCTGCTCCAGCAGCTGGTGCTGCACCAGCAGGAGGTCCTGCCCC
TCCACTGCTGCTGCTCCAGCTGAGGAGAAGAAAGTGAAGCAAAGAAAGAAGAATCCGAGGAGTCTGATGATGAC
ATGGGCTTTGGTCTTTTGGACTAAACCTCTTTTATAACATGTTCAATAAAAAGCTGAACTTT

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FIGURE 4229

MASVSELACIYSALILHDDEVTVTEDKINALIKAAGVNVEPFWPGLFAKALANVNI¹GS²LICNVGAGGPAPAAGAA
PAGGPAPSTAAAPAEKKVEAKKEESEESDDDMGFGLFD

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FIGURE 4230A

CGCAGGTGGCAGGCAGGTGGGGCTGGTACAGCCCGCGCCGCTCTGCTGCAGCCGCTGCCGTCTACTCCTTGCGC
GCTGGCACTCCGCAGCCTTTAAGGTTTCGCGCGGGGGCCAGGCAAGAGTTAGCCATGAAGAGCCTCAAGTCCCGCC
TGAGGAGGCAGGACGTGCCCGGCCCGCGTCGTCGCTGCGCGCCGCCGCCAGCGCGCATGCAGCAGATTGGAATA
AATATGATGACCGATTGATGAAAGCAGCAGAAAAGGGGGATGTAGAAAAAGTGACCTCAATCCTTGCTAAAAAGG
GGGTCAATCCAGGCAAACTAGATGTGGAAGGCAGATCTGTCTTCCATGTTGTGACCTCAAAGGGGAATCTTGAGT
GTTTGAATGCCATCCTTATACATGGAGTTGATATTACAACCAGTGACACTGCAGGGAGAAATGCTCTTCACCTGG
CTGCTAAGTATGGACATGCATTGTGCCTACAAAACTTCTACAGTACAATTGTCCCACTGAGCATGCAGACCTGC
AGGGAAGAACTGCACTTCACGATGCCGCAATGGCAGATTGTCTTCTAGCATACAGCTGCTTTGTGACCATGGGG
CCTCTGTGAATGCCAAAGATGTAGACGGGCGGACACCCTTGTCTGGCTACTCAGATGAGTAGGCCAACAAATAT
GTCAACTGCTGATAGATAGAGGAGCGGATGTTAATTCCAGAGACAAACAAAACAGAACTGCCCTCATGCTAGGTT
GCGAATATGGTTGCAGAGATGCAGTAGAAGTCTTAATTAATAATGGTGCTGATATAAGCTTGCTGGATGCGCTTG
GCCATGATAGTTCTTACTATGCAAGAATTGGTGACAATCTGGACATTCTAACCTTGTGGAAGACTGCATCGGAAA
ATACCAACAAAGGGAGAGAACTTTGGAAGAAAGGGCCATCTTTGCAACAGCGAAATTTGACACACATGCAAGATG
AAGTAAATGTGAAGTCACATCAGAGGGAGCATCAAAATATTCAGGATTTGGAGATTGAAAATGAAGATTTGAAAG
AGAGGTTGAGAAAAATTCAGCAAGAACAAAGAACTCTTTGGATAAAGTCAATGGTTTACAGTTACAGCTGAATG
AGGAAGTTATGGTTGCTGATGATCTGGAAAGCGAGAGAGAAAAGCTGAAGTCCCTTTTGGCAGCTAAAGAAAAGC
AACATGAAGAAAGCTTAAGGACTATTGAGGCTCTGAAAAATAGATTTAAATATTTTGAGAGTGATCATTTAGGAT
CAGGAAGTCATTTAGTAACCGAAAAGAAGATATGCTTCTTAAACAAGGTCAGATGTATATGGCAGACTCACAGT
GTACTTCCCCAGGTATACCAGCCCATATGCAAAGCAGATCTATGTTAAGACCTCTGGAACCTATCTTTACCCAGTC
AAACGTCATACTCTGAAAATGAAATTTTAAAGAAAGAGTTAGAAGCAATGCGAACTTTCTGTGAGTCAGCAAAAC
AAGACCGACTGAAGCTCCAAAATGAACTGGCACACAAAGTGGCAGAATGCAAAGCTTTAGCATTAGAATGTGAAA
GGGTCAAGGAGGATTGAGATGAACAGATAAAGCAATTAGAAGATGCATTAAAAGATGTGCAGAAGAGGATGTATG
AGTCAGAAGGTAAAGTTAAACAAATGCAGACCCATTTTCTTGCCCTTAAAGAACACTTAACAAGTGAAGCAGCCT
CAGGGAATCACAGACTAACCGAGGAAGTGAAGGATCAGTTGAAAGACTTGAAAGTAAATATGAAGGTGCTTCAG
CAGAAGTGGGGAAATTAAGAAACCAATCAAACAAATGAGATGATAGTAGAAGAGTTTAAGAGGGATGAAGGCA
AGCTGATAGAAGAAAATAAGCGATTACAGAAGGAACCTTAGTATGTGTGAAATGGAGCGAGAGAAGAAAGGAAGAA
AGGTACAGAGATGGAAGGCCAGGCAAAAGAATTGTGAGCGAAGTTGGCCCTTTCCATTCCAGCTGAAAAATTTG
AAAACATGAAGAGCTCATTATCAAATGAAGTGAATGAGAAAGCAAAAAAATTAGTAGAAATGGAAAGAGAACATG
AAAAATCACTTAGTGAAATTAGACAGTTAAAGAGAGAACTTGAGAATGTTAAGGCCAAGCTTGCTCAGCAGTCA
AACCAGAGGAACATGAACAGGTTAAGAGCAGATTAGAACAGAAATCAGGAGAACCTTGGAAGAAGATCACTGAGT
TAACATTGAAAAATCAGACACTACAAAAGGAAATTGAAAAAGTTTATTTGGATAATAAGCTCCTCAAGGAGCAAG
CACATAACTTAACAATTGAAATGAAAAATCATTATGTTTCTTTAAAGTAAGTGAAGACATGAAAAAGTCACATG
ATGCAATTATTGATGATCTTAATAGAAAGCTTTTAGATGTAACACAAAAATATACAGAAAAGAAAGTTGGAATGG
AGAAATTGCTACTGGAAAATGACAGCTTAAGTAAGGATGTAAGCCGCCTAGAAAAGTGTGTTTGTACCTCCTGAGA
AACATGAAAAAGAGATAATAGCTCTGAAATCCAATATTGTTGAACTTAAGAAACAGCTGTCTGAACCTTAAGAAAA
AATGTGGTGAAGACCAGGAGAAAATACACGCTCTCACATCTGAAAACACTAAGTTGAAGAAGATGATGAGTAATC
AGTATGTGCCAGTTAAAACCCATGAAGAGGTTAAAATGACACTGAATGACACGTTAGCCAAAACCTAACAGAGAAT
TATTAGATGTGAAGAAAAAATTTGAAGATATAAATCAGGAATTTGTAATAAAGATAAGAAATGAAATATTAA
AAAGAAACCTGGAAAACACTCAGAACCAATAAAAGCTGAGTACATCAGCCTGGCAGAGCACGAGGCAAGATGA
GCTCGCTAAGTCAGAGCATGAGAAAGGTGCAGGATAGTAATGCTGAAATCTTGCCAACTACAGAAAAGGCCAAG
AAGAGATTGTGACACTGCATGCCGAAATTAAGGCCAGAAAGGAGCTCGACACAATACAAGAAATGCATTAAGG
TAAATACGCCCCAATTGTGAGCTTTGAGGAGTGCGAGAGAAAATTTAAAGCAACAGAGAAAAGAACTAAAAGACC
AGTTATCAGAGCAGACACAAAAGTATAGTGTGAGTGAAGAAGAGTCAAGAAAAACAAGCAAGAGAAATGACAAGT
TAAAGAAGGAGATTTTACCCTTCAGAAAGATTTGAGAGATAAGACAGTTCTCATTGAGAAAGTCTCATGAAATGG
AAAGAGCATTAAAGCAGAAAAACAGACGAGCTAAACAAACAGTTAAAAGACTTGTCACAGAAAATACACGGAAGTAA
AGAATGTGAAAGAGAAGCTAGTAGAAGAAAATGCCAAACAGACTTCTGAGATACTTGACAGTGCAAAATCTTTTGC
AAAAACAACATGTTCCATTGGAACAGGTTGAGGCTCTGAAAAATCTCTTAATGGCACAATTGAAAATCTAAAGG
AAGAAGTGAAGAGTATGCAAGGTTGTTACGAGAAAGAGCAGCAGACAGTGACCAAACTGCATCAATTGTTGGAGA

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FIGURE 4230B

ATCAAAGAAGCTCTTCTGTACCCCTGGCAGAGCATTTCAGATTAAAGAAGCATTTGAGAAAGAAGTTGGAATCA
TAAAAGCCAGCTTGAGAGAAAAGGAAGAAGAAAGCCAAAACAAAATGGAAGAAGTCTCCAACTTCAGTCGGAGG
TTCAGAACTACTAAACAAGCATTAATAAATAATAGAGACTAGAGAGGTAGTTGACTTGCTCTAAATATAAAGCAACAA
AAAGTGATTGGAGACACAGATTCTAGCTTAAATGAAAAATTGGCCAATCTGAATAGAAAGTATGAGGAAGTAT
GTGAGGAAGTTTTGCATGCCAAAAGAAGGAAATATCTGCAAAAGATGAGAAGGAATTACTGCATTTTCAGCATTG
AGCAAGAAATTAAGGATCAGAAGGAACGATGTGATAAGTCCTTAACAACAATCACAGAGTTACAAAGAAGAATAC
AAGAATCTGCTAAACAAATAGAAGCAAAAGATAATAAGATAACTGAACTGCTTAATGATGTGGAAAGATTAAAC
AGGCACTCAATGGCCTTTCCCAACTCACCTACACAAGTGGGAACCCACCAAGAGGCAGAGCCAGCTGATTGACA
CTCTGCAGCACCAAGTGAAATCTCTGGAGCAACAGCTGGCCGATGCTGACAGACAGCACCAAGAAGTAATTGCAA
TTTATCGGACACACCTTCTTAGTGCTGCACAGGGTCACATGGATGAAGATGTTTCAGGAGGCTCTGCTCCAGATCA
TACAAATGCGGCAGGGGCTTGTGTGCTAGCCGTTAGCACTGACTGCCAGTATCTGTTTTATCTTGCTGGTGCTGA
ACATTCTTTGTGCAACTCCATGGTCTTTCTGGGCCTTACTGTGCTGGTATAATTAAAATAAAATATATTTTGTTC
T

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FIGURE 4231

MKSLKSRLRRQDVPGPASSGAAAASAHADWNKYDDRLMKAAERGDVEKVTSLAKKGVNPGKLDVEGRSVFHVV
TSKGNLECLNAILIHGVDITTSDTAGRNALHLAAKYGHALCLQKLLQYNCPTTEHADLQGR TALFLKAMADCPSSI
QLLCDHGASVNAKDVDGRTPVLATQMSRPTICQLLIDRGADVNSRDKQNR TALMLGCEYGCRAVEVLKNGAD
ISLLDALGHDSSYYARIGDNL DILTLLKTASENTNKGRELWKKGPSLQQRNLTHMQDEVNVKSHQREHQNIQDLE
IENEDLKERLRKIQQEQRIILLDKVNGLQQLNNEEVMVADDLESEREKLKSLLAKEKQHEESLRTIEALKNRFKY
FESDHLGSGSHFSNRKEDMLLKQGMADSQCTSPGIPAHMQSRSMRLRPLELSLPSQTSYSENEILKKELEAMR
TFCESAKQDRLKLQNELAHKVAECKALALECERVKEDSDEQIKQLEDALKDVQKRMYESSEGKVKQM QTHFLALKE
HLTSEAASGNHRLTEELKDQLKDLKVKEYEGASAEVGKLRNQIKQNEMIVEEFKRDEGKLI EENKRLQKELSMCEM
EREKKGRKVTEMEGQAKELSAKLALSIPA EKFFENMKSSLSNEVNEKAKKLVEMEREHEKSLSEIRQLKRELENVK
AKLAQHVKPEEHEQVKSRL EQKSGELGKKITELTLKNQTLQKEIEKVYLDNKLLKEQAHNLTIE MNHYVPLKVS
EDMKKSHDAI IDDLNRKLLDVTQKYTEKKLEMEKLLLENDLSKDVSRLET VFPPEKHEKEIIALKSNIVELKK
QLSELKKKCGEDQEKIHALTSENTNLKKMMSNQYVPVKTHEEVKMTLNDTLAKTNRELLDVKKKFEDINQEFVKI
KDKNEILKRNLENTQNQIKA EYISLAEHEAKMSSLSQSMRKVQDSNAEILANYRKGQEEIVTLHAEIKAQKKELD
TIQECIKVKYAPIVSFE ECERKFKATEKELKDQLSEQTKYSVSEEEVKKNQENDKLLKEIFTLQKDLRDKTVL
IEKSHEMERALS RKTDELNKQLKDL SQKYTEVKNVKEKLVEENAKQTSEILAVQNLLQKQHVPLEQVEALKKSLN
GTIENLKEELKSMQRCYEKEQQT VTKLHQ LLENQKNSSVPLAEHLQIKEAFEKEVGI IKASLREKEEESQNK MEE
VSKLQSEVQNTKQALKKLETREVVDLSKYKATKSDLETQISSLNEKLANLNRKYEEVCEEVLHAKKKEISAKDEK
ELLHFSIEQEIKDQKERC DKSLTTITELQRRIQESAKQIEAKDNKITELLNDVERLKQALNGLSQLTYTSGNPTK
RQSQLIDTLQHVKSL EQQLADADRQHQEVI AIYRTHLLSAAQGHMEDVDQEALLQIIQMRQGLVC

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FIGURE 4232

GCAGTCACTGCCGACCGGCTGGCTGGGCCCTTGCGGCGTGAGGACCCCGGCGGCCGCGAGTCCCGCGAGCCATGG
CCCAGTCCGGCGGGGAGGCTCGGCCCGGGCCCAAGACGGCGGTGCAGATCCGCGTCGCCATCCAGGAGGCCGAGG
ACGTGGACGAGTTGGAGGACGAGGAGGAGGGGGCGGAGACTCGGGGCGCGGGGACCCGGCCCGGTACCTCAGCC
CCGGCTGGGGCAGCGCGAGCGAGGAGGCCGAGCCGCGGGCACAGTGGCACCACTGCAAGTGGAGGTGAGAATG
AGCGTGAGGACCTGGAGCAGGAGTGGAAGCCCCGGATGAGGAGTTGATCAAGAACTGGTGGATCAGATCGAAT
TCTGCTTTTCTGTATGAAAACCTGGAGAAGGACGCCCTTTTGTCTAAACACGTGAGGAGGAACAAGCTGGGATATG
TGAGCGTTAAGCTACTCACATCCTTCAAAAAGGTGAAACATCTTACACGGGACTGGAGAACCACAGCACATGCTT
TGAAGTATTCAGTGGTCCTTGAGTTGAATGAGGACCACCGGAAGGTGAGGAGGACCACCCCGTCCCCTGTTCC
CCAACGAGAACCTCCCCAGCAAGATGCTCCTGGTCTATGATCTCTACTTGTCTCCTAAGCTGTGGGCTCTGGCCA
CCCCCAGAAGAATGGAAGGGTGCAAGAGAAGGTGATGGAACACCTGCTCAAGCTTTTGGGACTTTTGGAGTCA
TCTCATCAGTGC GGATCCTCAAACCTGGGAGAGAGCTGCCCCCTGACATCCGGAGGATCAGCAGCCGCTACAGCC
AAGTGGGGACCCAGGAGTGC GCCATCGTGGAGTTCGAGGAGGTGGAAGCAGCCATCAAAGCCCATGAGTTCATGA
TCACAGAATCTCAGGGCAAAGAGAACATGAAAGCTGTCCTGATTGGTATGAAGCCACCCAAAAAGAAACCTGCCA
AAGACAAAAATCATGACGAGGAGCCCACTGCGAGCATCCACCTGAACAAGTCCCTGAACAAGAGAGTCGAGGAGC
TTCAGTACATGGGTGATGAGTCTTCTGCCAACAGCTCCTCTGACCCCGAGAGCAACCCCAATCCCTATGGCGG
GCCGACGGCACGCGGCCACCAACAAGCTCAGCCCGTCTGGCCACCAGAATCTCTTTCTGAGTCCAAATGCCTCCC
CGTGACACAAGTCTTGGAGCAGCCCTTGGCCCAACGCAAAGGCGTTTCCAGAAAGTCCCCACTGGCGGAGGAAG
GTAGACTGAACTGCAGCACCAGCCCTGAGATCTTCCGCAAGTGTATGGATTATTCCTCTGACAGCAGCGTCACTC
CCTCTGGCAGCCCTTGGGTCCGGAGGCGTCGCCAAGCCGAGATGGGGACCCAGGAGAAAAGCCCGGTACGAGTC
CCCTGCTCTCCCGGAAGATGCAGACTGCAGATGGGCTACCCGTAGGGGTGCTGAGGTTGCCAGGGGTCTTGACA
ACACCAGAGGATTTTCATGGCCATGAGAGGAGCAGGGCCTGTGTATTAATACCTTCTATTTTTTAATACAAGCTCCA
CTGAAAACCACTTCGTTTTCAAGGTTCTGACAAACACCTGGCATGACAGAATGGAATTCGTTCCCTTTGAGAG
ATTTTTTATTCATGTAGACCTCTTAATTTATCTATCTGTAATATACATAAATCGGTACGCCATGGTTTGAAGACC
ACCTTCTAGTTCAGGACTCCTGTTCTTCCAGCATGGCCACTATTTTGATGATGGCTGATGTGTGTGAGTGTGAT
GGCCCTGAAGGGCTGTAGGACGGAGGTTCCCTGGGGGAAGTCTGTTCTTTGGTATGGAATTTTTCTCTCTCTTT
GGTATGGAATTTTTCCCTTCAGTGAAGTGTCTCGATAGGCCATGCAAGGGCTTCCTGAGAGTTCAGGAAA
GTTCTCTTGTGCAACAGCAAGTAGCTAAGCCTATAGCATGGTGTCTTGTAGGACCAAATCGATGTTACCTGTCAA
GTAAATAATAATAAAACACCCAACTGGGAGTGCTG

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FIGURE 4233

MAQSGGEARPGPKTAVQIRVAIQEAEDVDELEDEEEGAETRGAGDPARYLSPGWGSASEEEPSRGHSGTTASGGE
NEREDLEQEWKPPDEELIKKLVDQIEFCFSDENLEKDAFLKLVRRNKLGYVSVKLLTSFKKVKHLTRDWRTTAH
ALKYSVVLELNEDHRKVRRTTPVPLFPNENLPSKMLLVYDLYLSPKLWALATPQKNGRVQEKVMEHLLKLFGTFG
VISSVRILKPGRELPPDIRRISSRYSQVGTQECAIVEFEEVEAAIKAHEFMITESQGKENMKAVLIGMKPPKKKP
AKDKNHDEEPTASIHNLKSLNKRVEELQYMGDESSANSSSDPESNPTSPMAGRRHAATNKLSPSGHQNLFLSPNA
SPCTSPWSSPLAQRKGVSRKSPLAEEGRNLCSTSPEIFRKCMDYSSDSSVTPSGSPWVRRRQAEMGTQEKSPGT
SPLLSRKMQTADGLPVGVRLRLPRGPDNTRGFHGHESRACV

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FIGURE 4234

ATGTCCATCAGGGTGACCCAGAAGTCCTACAAGATGTCCACCTCTGGCCCCCGGGCCTTCAGCAGCTGCTCCTAC
ACAAGCTCTACACACCCAAAGAAGGAGCAGATCAAGGCCCTCAACAACAAGTTTGCCTCCTTCATAGACAAGGTA
TGGTTCCTGGAGCAGCAGAACAAGATGCTGGAGACCAAGTGGAGCCTCCTGCAGCAGCAGAAGATGGCTCGGAAC
AACAAGAACAACATGTTCCAGAGCTATATCAACAACCTTAGGTGGCAGCTGGAGACTCTGAGCCAGGAGAAGCTG
AAGCTGGAGGTGGAGCTTGGCAACATGCAGGGGCTGGTGGAGGACTTCAAGAACAATATGAGGATGAGATCAAT
AAGCGTACAGAGGTGGAGAATGAATTTGTCCTCATCAAGAAGGATGTGGATGAAGCTTACATGAACAAGATAGAG
CTGGAGTCTTGCCTGGAAGGGCTGACTGACGAGATGGACTTCCTCAGGCAGCTGTTTGAAGAGGAGATCTGGGAG
CTGCAGTCCCACATCTCGGACATATCTGTGGTGCTGTCCATGGACAACAGCTACTTCCTGGACACGGTCAGCATC
ATTGCTGAGGTCAAGGAGGAGATTGCCAACCGCAGCCAGGCGGAGGCTGAGAGCATGCACCAGATCAAGTATGAG
GAGCTGCAGACGCTGGCTGGGAAGCTTGGGCATGACCTGCAGCCTATAAAGACTGAGATCTCCGAGATGAAGTGG
AACATCAGCCGGCTCCAGGCTGAGATTAAGGGCCTCAAAGGCCAGATGGCTTCCTGGAGGGCCACCATCGCAGAT
GTGGAGCAGCGTGGGGAGCTGGCCGTTAAGGATGCCAACGCCAAGCTGTCCGAGCTGGAGGCCTCTCTGCAATGG
GCCAGGCAGGATATGGTGTGGCAGCTGCGTGAGTACCAGGAGCTGATGAATGTCAAGCTGGCCTTGGGCATCAA
ACTGCCACCTACAGGAAGCTGCTGGAGGGTGAGGAGAGCCGGCTGGAGTCTGGGATGCAGAACATGACAATCCAT
ACGAAGACCACCAGCGGCTATGCAGGTGGTCTGAGCTCCACCTATGGGGACCTCACAAGCCCCGGCCTCAGCTAC
AGCCTGGGCTCCAGCTTTGGCTCTGGCGCAGGCTCCAGCTCCTTCAGCCGCACCGGCTCCACCAGGGCTGTGGTT
GAAGAAGATTGA

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FIGURE 4235

MSIRVTQKSYKMSTSGPRAFSSCSYTSSTHPKKEQIKALNNKFASFIDKVWFLEQQNKMLETKWSLLQQQKMARN
NKNMFMQSYINNLRWQLETLSQEKLKLEVELGNMQGLVEDFKNKYEDEINKRTEVENEFVLIKKDVDEAYMNKIE
LESCLEGLTDEMDFLRQLFEEIWEIQSHISDISVVLSDNSYFLDTVSIIEVKEEIANRSQAEAESMHQIKYE
ELQTLAGKLGHDLQPIKTEISEMNWNISRLQAEIKGLKGQMASLEATIADVEQRGELAVKDANAKLSELEASLQW
ARQDMVWQLREYQELMNVKLALGIKTATYRKLEGEESRLESGMQNMTIHTKTTSGYAGGLSSTYGDLTSPGLSY
SLGSSFGSGAGSSSFRTGSTRAVVEED

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FIGURE 4236

GCAGTACATTGAGCTCCACAGAGACAGCGCCAGGGCAAGTGAGAGCCGGACGGGCACTGGGCGACTCTGTGCCTC
GCTGAGGAAAAATAACTAAACATGGGCAAAGGAGATCCTAAGAAGCTGAGAGGCAAAATGTCATCATATGCATTT
TTTGTGCAAAACGTCGGGAGGAGCATAAGAAGAAGCACCCAGATGCTTCAGTCAACTTCTCAAGAGTTTTCTAAGA
AGTGGCCATTATGAAAGAGAAATGAAAACCTACATCCCTCCCAAAGGGGAGACAAAAAGAAGTTCAAGGATCCC
AATGCACCCAAGAGGCCCTCCTTCGGCCTTCTTCCTCTTCTGCTCTGAGTATCGCCAAAAATCAAAGGAGAACAT
CCTGGCCTGTCCATTGGTGATGTTGCGAAGAAACTGGGAGAGATGTGGAATAACACTGCTGCAGATGACAAGCAG
CCTTATGAAAAAGAAGGCTGCGAAGCTGAAGGAAAAATACGAAAAGGATATTGCTGCATATCGAGCTAAAGGAAAG
CCTGATGCAGCAAAAAAGGGAGTTGTCAAGGCTGAAAAAAGCAAGAAAAAGAAGGAAGAGGAGGAAGATGAGGAA
GATGAAGAGGATGAGGAGGAGGAGGAAGATGAAGAAGATGAAGATGAAGAAGAAGATGATGATGATGAATAAGTT
GGTTCTAGCGCAGTTTTTTTTTCTTGTCTATAAAGCATTTAACCCCCCTGTACACAACCTCACTCCTTTTAAAGAA
AAAACTGAAATGTAAGGCTGTGTAAGATTTGTTTTTAACTGTACAGTGTCTTTTTTGTATAGTTAACACACT
ACCGAATGTGTCTTTAGATAGCCCTGTCTGGTGGTATTTTCAATAGCCACTAACCTTGCTTGGTACAGTATGGG
GGTTGTAAATTGGCATGGAATTTAAAGCAGGTTCTTGTGGTGCACAGCACAAATTAGTTATATAIGGGGATGG
TAGTTTTTTCATCTTCAGTTGTCTCTGATGCAGCTTATACGAAATAATTGTTGTTCTGTTAACTGAATACCACTC
TGTAATTGCAAAAAAAAAAAAAAAAAAGTTGCAGCTGTTTTGTTGACATTCTGAATGCTTCTAAGTAAATACAATTT
TTTTATTAGTATTGTTGTCCTTTTCATAGGTCTGAAATTTTTCTTCTTGAGGGGAAGCTAGTCTTTTGCTTTTGC
CCATTTTGAATCACATGAATTATTACAGTGTTTATCCTTTTCATATAGTTAGCTAATAAAAAGCTTTTGTCTACCC
ACCCTGCATATCATAATGAGGGTAAAGTTAAGTTGAGATAGTTTTTCATCCATACTGAACATCCAAAATCTTGAT
CAGTTAAGAAATTTACATAGCCCACTTACATTTACAACTGAAGAGTAATCAATCTACTCAAAGCATGGGATTA
CTAGAATCAAACATTTTGAAAGTCTGTCTTGAAGGACTAATAGAAAAGTATGTTCTAACCTTTACATGAGGACT
CTATTCTTTAACTCCCATTAACATGTAATGGCAGTTATATTTTGCAGTTCCACATTAAGAAGACCTGAGAATG
TATCCCCAAAAGCGTGAGCTTAAATAACAAGACTGCCATATTAAATTTTTTGTGACATTAGTCTCAGTGAAGAC
TATGAAAATGCTGGCTATAGATGTCTTTTCCATTTATCTAAATATGGACTGCTCAGGAAACGAGACTTTCCATT
ACAAGTATTTTTAATTAATTGGGCCAGCTTTTCAAACAAAGATGCCACATTCAAATAGGGTATATTTTCCTATA
TTACGGTTTGCCCCCTTTATAAATCCAAGTAGATAGGAGGAAAGAAGACACTTAACTTTGCATCTCAGTATGAAT
TATTCAATTTATTTGAATGATTTTTCTTTACAAAACAACTCATCATTAGTCATGTTTATCTGCTTAGCAGTTTA
GGGAACAATTTGGCAATTTGTGGTTTTTCGAGATTATCGTTTTCTTAAAGTGCCAGTATTTTAAATAGCGTTCT
TATAATTTTACACGCTTTTGTGATGGAGTGCTGTTTTGTTATATAATTTTGAAGTTGGATTCTTTCCATTTGCATT
TGTTTTATGTAATTTCAAGGAGGAATACTGAACATCTGAGTCCTGGATGATACTAATAAACTAATAATTGCAGAGGT
TT

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FIGURE 4237

TTACAGGAAAAAGGCTCTTGCTATGAAAAGTTAATCCATAAAATTACAAAAATGACTGTTTTGGCAGTACATTGAG
CTCCACAGAGACAGCGCCAGGGCAAGTGAGAGCCGGACGGGCACTGGGCGACTCTGTGCCTCGCTGAGGAAAAAT
AACTAAACATGGGCAAAGGAGATCCTAAGAAGCTGAGAGGCAAAATGTCATCATATGCATTTTTTGTGCAAACGT
CGGGAGGAGCATAAGAAGAAGCACCCAGATGCTTCAGTCAACTTCTCAAGAGTTTTCTAAGAAGTGCTCAGAGAG
GTGGAAGACCATTTCTGTAAAGACAAAGGAAAATTTCAAGATATGGCAAAGGTGGACAAGGCCCATTTATGAAAG
AGAAATGAAAACCTACATCCCTCCCAAAGGGGAGACAAAAAAGAAGTTCAAGGATCCCAATGCACCCAAGAGGCC
TCCTTCGGCCTTCTTCTCTTCTGCTCTGAGTATCGCCCCAAAAATCAAAGGAGAACATCCTGGCCTGTCCATTGG
TGATGTTGCGAAGAACTGGGAGAGATGTGGAATAACACTGCTGCAGATGACAAGCAGCCTTATGAAAAGAAGGC
TGCGAAGCTGAAGGAAAAATACGAAAAGGATATTGCTGCATATCGAGCTAAAGGAAAGCCTGATGCAGCAAAAAA
GGGAGTTGTCAAGGCTGAAAAAAGCAAGAAAAAGAAGGAAGAGGAGGAAGATGAGGAAGATGAAGAGGATGAGGA
GGAGGAGGAAGATGAAGAAGATGAAGATGAAGAAGAAGATGATGATGATGAATAAGTTGGTTCTAGCGCAGTTTT
TTTTTCTTGTCTATAAAGCATTTAACCCCCCTGTACACAACCTCACTCCTTTTAAAGAAAAAAACTGAAATGTAAG
GCTGTGTAAGATTTGTTTTTAACTGTACAGTGTCTTTTTTTGTATAGTTAACACACTACCGAATGTGTCTTTAG
ATAGCCCTGTCTGGTGGTATTTTCAATAGCCACTAACCTTGCTTGGTACAGTATGGGGTTGTAAATTGGCATG
GAAATTTAAAGCAGGTTCTTGTGGTGCACAGCACAAATTAGTTATATATGGGGATGGTAGTTTTTTCATCTTCA
GTTGTCTCTGATGCAGCTTATACGAAATAATTGTTGTTCTGTAACTGAATACCACTCTGTAATTGCAAAAAAA
AAAAAAAGTTGCAGCTGTTTTGTTGACATTCTGAATGCTTCTAAGTAAATACAATTTTTTTTATTA

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FIGURE 4238

MLQSTSQEFSKKCSERWKTISAKDKGKFQDMAKVDKAHYEREMKTYIPPKGETKKKFKDPNAPKRPPSAFFLFCS
EYRPKIKGEHPGLSIGDVAKKLGEMWNNNTAADDKQPYEKKAACLKEKYEKDIAAYRAKGKPDAAKKGVVKAESK
KKKEEEEEDEEEDSWF

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FIGURE 4239

AGGTAATCTGTGAAAAATGGTTCGCTATTCACTTGACCCGGAGAACCCACGAAATCAGGCAAATCAAGAGGTTCC
AATCTTCGTGTTCACCTTAAGAACAACCTCGTGAAACTGCTCAGGCCATCAAGGGTATGCATATACGAAAAGCCACG
AAGTATCTGAAAGATGTCACCTTACAGAAACAGTGTGTACCATTCGACATTACAACGGTGGAGTTGGCAGGTGT
GCGCAGGCCAAGCAGTGGGGCTGGACACAAGGTCGGTGGCCCAAAAAGAGTGCTGAATTCTTGCTGCACATGCTT
AAAAACGCAGAGAGTAATGCTGAACTTAAGGGTTTAGATGTAGATTCTCTGGTCATTGAGCATATCCAAGTGAAC
AAAGCACCTAAGATGCACCGCCGGACCTACAGAGCTCATGGTCGGATTAACCCATACATGAGCTCTCCCTGCCAC
ATTGAGATGATCCTTACGGAAAAGGAACAGATTGTTCTAAACCAGAAGAGGAGGTTGCCCAGAAGAAAAAGATA
TCCCAGAAGAACTGAAGAAAACAAAACTTATGGCACGGGAGTAAATTCAGCATTAAATAAATGTAATTAAAG
G

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FIGURE 4240

MVRYSLDPENPTKSGKSRGNSLRVHFKNTRETAQAIGMHIRKATKYLKDVTLQKQCVFRRHYNGGVGRCAQAKQ
WGWTQGRWPKKSAEFLHMLKNAESNAELKGLDVDLSVIEHIQVNKAPKMHRRTYRAHGRINPYMSSPCHIEMIL
TEKEQIVPKPEEEVAQKKKISQKKLKKQKLMARE

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FIGURE 4241

GAATCAAAGTTCCTCTTGGGGAAATGGCAAGTCTTTAGGACAGGCGAGACCCTGTATGAATAGTACCAAAGCATT
ACTGCATGGTAGAGAACACACTCAATTAAAAATGTTAAGCTATCTGAAAAATAAAATGTGCAAGTCTTCAGGATG
GCACAAAACAAAGGTTAATGCTTCTTGGGGCACATTTCTTAGAGGGCTTGCTGAGTGTGTAAATATAATCGACTT
TTGTTTGTGTTACATGACTTCTGTGACTTCACTGAAAATCTGCACAATTCAGTTTCAGCTCTGGATTACTTCAGT
TGACCTTTGTGAAGGTTTTTATCTGTGTAGAATGGGTGTTTGACTTGTTTTAGCCTATTACGTTTTTATTTTCTT
TCACTCTGTATTAAAAGTAAAACTTACTAAAAGAAAAGAGGTTTGTGTTACATTAAATGGTTTTGGATTGGCTT
TTTTTAGTGAGGCTTTCTGAACATTGAGATATCCTGAACCTTAGAGCTCTTCAATCCTAAGATTTTCATGAAAAGC
CTCTCACTTGAACCCAAACCAGAGTACTCTTACTGCCTCTTTTCTAAATGTTTCAGGAAAAGCATCGTCAGTTCAG
TCTTTTTCAGAATGAGGGAGAAACATTTGCCTGCCTTGTAATAACAAGACTCAGCGCTTATTTTTTAAACTGCAT
TTTAAAAATTGGATAGTATAATAACAATAAGGAGTAAGCCACCTTTTATAGGCACCTGTAGTTTTATAGTTCTT
AATCCAAACATTTTATATTTCTTCTTTTGGAAAAACCTACATGCTACAAGCCACCATATGCACAGACTATACA
GTGAGTTGAGTTGCCTCTCCACAGTCTTTGAGGCGAATTACAAAAGTCCAGCCATTATCATCTTCTGAGTTAT
TATTTTGAAATGATTTTTTTGTACATTTTGGCTGCAGTATTGGTGGTAGAATATACTATAATATGGATCATCTCT
ACTTCTGTATTTATTTATTTATTACTAGACCTCAACCACAGTCTTCTTTTCCCCTTCCACTGTCTTCTTTTCC
CCTTCCACCTCTCTTTGCCTGTAAGATGTACTGTATGTAGTCATGCACCTTGTATTAATATATTAGAAATCTACA
GATCTGTTTTGTACTTTTTATACTGTTGGATACTTATAATCAAACCTTTTACTAGGGTATTGAATAAATCTAGTC
TTATTAGAAAATAAAAAATAAAAAATAAAAAATAAAAAA

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FIGURE 4242

GGCTGAGGCAGTGGCTCCTTGACACAGCAGCTGCACGCGCCGTGGCTCCGGATCTTCTTCGTCTTTGCAGCGTAGC
CCGAGTCCGTCAGCGCCAGAGGACCTCAGCAGCCATGTCGAAGCCCCATAGTGAAGCCGGGACTGCCTTCATTCA
GACCAGCAGCTGCACGCAGCCATGGCTGACACATTCTGGAGCACATGTGCCGCTGGACATTGATTCACCACC
CATCACAGCCCCGGAACACTGGCATCATCTGTACCATTGGCCCAGCTTCCCCGATCAGTGAGACGTTGAAGGAGAT
GATTAAGTCTGGAATGAATGTGGCTCGTCTGAACCTCTCTCATGGAACATCATGAGTACCATGCGGAGACCATCAA
GAATGTGCGCACAGCCACGGAAAGCTTTGCTTCTGACCCCATCCTCTACCGGCCCCGTTGCTGTGGCTCTAGACAC
TAAAGGACCTGAGATCCGAACCTGGGCTCATCAAGGCGAGCGGCACTGCAGAGGTGGAGCTGAAGAAGGGAGCCAC
TCTCAAAATCACGCTGGATAACGCCTACATGGAAGAGTGTGACGAGAACATCCTGTGGCTGGACTACAAGAACAT
CTGCAAGGTGGTGGAAAGTGGGCAGCAAGATCTACGTGGATGATGGGCTTATTTCTCTCCAGGTGAAGCAGAAAGG
TGCCGACTTCTGTGTGACGGAGGTGGAAAATGGTGGCTCCTTGGGCAGCAAGAAGGGTGTGAACCTTCTGGGGC
TGCTGTGGACTTGCCGTGCTGTGTGCGGAGAAGGACATCCAGGATCTGAAGTTTGGGGTCGAGCAGGATGTTGATAT
GGTGTTCGCTCATTATCCGCAAGGCATCTGATGTCCATGAAGTTAGGAAGGTCTTGGGAGAGAAGGGAAAGAA
CATCAAGATTATCAGCAAAATCGAGAATCATGAGGGGGTTCGGAGGTTTGATGAAATCCTGGAGGCCAGTGATGG
GATCATGGTGGCTCGTGGTGATCTAGGCATTGAGATTCCGTCAGAGAAGGTCTTCTTGTCTCAGAAGATGATGAT
TGGACGGTGCAACCGAGCTGGGAAGCCTGTCTGTGCTACTCAGATGCTGGAGAGCATGATCAAGAAGCCCCG
CCCCACTCGGGCTGAAGGCAGTGATGTGGCCAATGCAGTCTGGATGGAGCCGACTGCATCATGCTGTCTGGAGA
AACAGCCAAAGGGGACTATCCTCTGGAGGCTGTGCGCATGCAGAACCTGATTGCCCCGTGAGGCAGAGGCTGCCAT
CTACCACTTGCAATTATTTGAGGAACCTCCGCCGCTGGCGCCCATTACCAGCGACCCACAGAAGCCACCGCCGT
GGGTGCCGTGGAGGCCTCCTTCAAGTGCTGCAGTGGGGCCATAATCGTCTCACCAGTCTGGCAGGTCTGCTCA
CCAGGTGGCCAGATACCGCCACAGTGGCCCCATCATTGCTGTGACCCGGAATCCCCAGACAGCTCGTCAGGCCCCA
CCTGTACCGTGGCATCTTCCCTGTGCTGTGCAAGGACCCAGTCCAGGAGGCCTGGGCTGAGGACGTGGACCTCCG
GGTGAACCTTTGCCATGAATGTTGGCAAGGCCCGAGGCTTCTTCAAGAAGGGAGATGTGGTCATTGTGCTGACCGG
ATGGCGCCCTGGCTCCGGCTTACCAACACCATGCGTGTGTTCTGTGCGGTGATGGACCCAGAGCCCCCTCCT
CCAGCCCCCTGTCCACCCCCCTTCCCCAGCCCATCCATTAGGCCAGCAACGCTTGTAGAACTCACTCTGGGCTGT
AACGTGGCACTGGTAGGTTGGGACACCAGGGAAGAAGATCAACGCCTCACTGAAACATGGCTGTGTTTGCAGCCT
GCTCTAGTGGGACAGCCCAGAGCCTGGCTGCCCCATCATGTGGCCCCACCCAATCAAGGGAAGAAGGAGGAATGC
TGGACTGGAGGCCCCCTGGAGCCAGATGGCAAGAGGGTGACAGCTTCCTTTTCTGTGTGTACTCTGTCCAGTTCCT
TTAGAAAAAATGGATGCCAGAGGACTCCCAACCCTGGCTTGGGGTCAAGAAACAGCCAGCAAGAGTTAGGGGCC
TTAGGGCACTGGGCTGTTGTTCCATTGAAGCCGACTCTGGCCCTGGCCCTTACTTGCTTCTCTAGCTCTCTAGGC
CTCTCCAGTTTGCACCTGTCCCCACCCTCCACTCAGCTGTCTGCAGCAAACACTCCACCCTCCACCTTCCATTT
TCCCCCACTACTGCAGCACCTCCAGGCCTGTTGCCGC

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FIGURE 4243

MSKPHSEAGTAFIQTQQLHAAMADTFLEHMCRLDIDSPPI TARNTGIICTIGPASRSVETLKEMIKSGMNVARLN
FSHGTHEYHAETIKNVRTATESFASDPILYRPVAVALDTKGPEIRTGLIKSGTAEVELKKGATLKITLDNAYME
KCDENILWLDYKNICKVVEVGSKIYVDDGLISLQVKQKGADFLVTEVENGGSLGSKKGVNLPGAAVDLPAVSEKD
IQDLKFGVEQDVMVFASFIRKASDVHEVRKVLGEKGKNIKIISKIENHEGVRRFDEILEASDGIMVARGDLGIE
IPAEEKVFLAQKMMIGRCNRAGKPVICATQMLESMIKKPRPTRAEGSDVANAVLDGADCIMLSGETAKGDYPLEAV
RMQNLIAREAEAAIYHLQLFEELRRLAPITSDPTEATAVGAVEASFKCCSGAIIVLTKSGRSAHQVARYRPRAPI
IAVTRNPQTARQAHLYRGIFPVLCKDPVQEAWAEDVDLRVNFAMNVGKARGFFKKGDVVIVLTGWRPGSGFTNTM
RVVPVP

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FIGURE 4244

CCTCCGAGAGGGGAGACCAGCGGGCCATGACAAGCTCCAGGCTTTGGTTTTCGCTGCTGCTGGCGGCAGCGTTTCG
CAGGACGGGCGACGGCCCTCTGGCCCTGGCCTCAGAACTTCCAAACCTCCGACCAGCGCTACGTCCTTTACCCGA
ACAACCTTTCAATTCCAGTACGATGTCAGCTCGGCCGCGCAGCCCCGGCTGCTCAGTCCTCGACGAGGCCTTCCAGC
GCTATCGTGACCTGCTTTTTCGGTTCCGGGTCTTGGCCCCGTCCTTACCTCACAGGGAAACGGCATACTGGAGA
AGAATGTGTGTGGTTGTCTCTGTAGTCACACCTGGATGTAACCAGCTTCCTACTTTGGAGTCAGTGGAGAATTATA
CCCTGACCATAAATGATGACCAGTGTCTTACTCCTCTCTGAGACTGTCTGGGGAGCTCTCCGAGGTCTGGAGACTT
TTAGCCAGCTTGTTTTGGAATCTGCTGAGGGCACATTCTTTATCAACAAGACTGAGATTGAGGACTTTCCCCGCT
TTCCCTACCGGGGGCTTGCTGTTGGATACATCTCGCCATTACCTGCCACTCTCTAGCATCCTGGACACTCTGGATG
TCATGGCGTACAATAAATTGAACGTGTTCCACTGGCATCTGGTAGATGATCCTTCCTTCCCATATGAGAGCTTCA
CTTTTCCAGAGCTCATGAGAAAGGGGCTCTACAACCCTGTCACCCACATCTACACAGCACAGGATGTGAAGGAGG
TCATTGAATACGCACGGCTCCGGGGTATCCGTGTGCTTGACAGTTTGACACTCCTGGCCACACTTTGTCTGGG
GACCAGGTATCCCTGGATTACTGACTCCTTGCTACTCTGGGTCTGAGCCCTCTGGCACCTTTGGACCAAGTGAATC
CCAGTCTCAATAATACCTATGAGTTCATGAGCACATTCTTCTTAGAAGTCAGCTCTGCTCTCCAGATTTTATC
TTCATCTTGGAGGAGATGAGGTTGATTTACCTGCTGGAAGTCCAACCCAGAGATCCAGGACTTTATGAGGAAGA
AAGGCTTCGGTGAGGACTTCAAGCAGCTGGAGTCTTCTACATCCAGACGCTGCTGGACATCGTCTCTTCTTATG
GCAAGGGCTATGTGGTGTGGCAGGAGGTGTTTGATAATAAAGTAAAGATTGAGCCAGACACAATCATACAGGTGT
GGCGAGAGGATATTCCAGTGAACATATGAAGGAGCTGGAAGTGGTCACCAAGGCCGGCTTCCGGGGCCCTTCTCT
CTGCCCCCTGGTACCTGAACCGTATATCCTATGGCCCTGACTGGAAGGATTTCTACATAGTGAACCCCTGGCAT
TTGAAGGTACCCCTGAGCAGAAGGCTCTGGTGATTGGTGGAGAGGCTTGATGTGGGGAGAATATGTGGACAACA
CAAACCTGGTCCCCAGGCTCTGGCCAGAGCAGGGGCTGTTGCCGAAAGGCTGTGGAGCAACAAGTTGACATCTG
ACCTGACATTTGCCTATGAACGTTTGTACACTTCCGCTGTGAATTGCTGAGGCGAGGTGTCCAGGCCCAACCCC
TCAATGTAGGCTTCTGTGAGCAGGAGTTTGAACAGACCTGAGCCCCAGGCACCGAGGAGGTGCTGGCTGTAGGT
GAATGGTAGTGAGCCAGGCTTCCACTGCATCCTGGCCAGGGGACGGAGCCCTTGCTTCTGCTGCCCCCTGGCCTG
CGTGCCCCCTGTGCTTGGAGAGAAAGGGCCGGTGTGGCGCTCGCATTCAATAAAGAGTAATGTGGCATTITTTCT
ATAATAAACATGGATTACCTGTGTTTTAAAAAAAAGTGTGAATGGCGTTAGGGTAAGGGCACAGCCAGGCTGGA
GTCAGTGTCTGCCCCCTGAGGTCTTTTAAGTTGAGGGCTGGGAATGAAACCTATAGCCTTTGTGCTGTTCTGCCTT
GCCTGTGAGCTATGTCACTCCCTCCCACTCCTGACCATATTCCAGACACCTGCCCTAATCCTCAGCCTGCTCAC
TTCATTTCTGCATTATATCTCCAAGGCGTTGGTATATGAAAAAGATGTAGGGGCTTGGAGGTGTTCTGGACAGT
GGGGAGGGCTCCAGACCCAACCTGGTCACAGAAGAGCCTCTCCCCATGCATACTCATCCACCTCCCTCCCTAG
AGCTATTCTCCTTTGGGTTTCTTGCTGCTTCAATTTTATACAACCATTATTTAAATATTATTAAACACATATTGT
TCTCT

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FIGURE 4245

CCCTGAGCAGAAGGCTCTGGTGATTGGTGGAGAGGCTTGTATGTGGGGAGAATATGTGGACAACACAAACCTGGT
CCCCAGGCTCTGGTAAGGGTTTTTCGGGGGGGAGGTGGAGGGTTGGGCCTGAGAGCAGGAGTTCTCCCTTAGAGAC
CCAATCCCATCTAGCCACCTCTGGACTAGTACCCTTCTTTCAGGCCTGAGAGAGAGCAGGCCGTGCAACGAGCCT
TCTGAAGATTTGTGTGCAATATTCACCTCTCCACATGACTTCCGTCTATATCCCTCCAGCTGCCCTTTGGTATGTG
GGATAGGGATTGTTAACCTTACTTCCCAGAGAGATAATGAGGCCTGGAGAACATAGGTGAGTTGCTCAAGACCCA
GCACAAGCATCCATGATTCTGTAAATAAGGCTTCCCTCTGCTGTTTTCACTGCAGCCTTACCAAGTATGGTTGGG
TGTGCAAAGTTTACATTTTAAGGACCTCTGCTGCTGCCACTGTCATTGTGGTTAATGATGGCTTTAAGGTTTATT
CTTATTCCCATATCTTTGAGAGAGGAAGAGAGTGGGATTGCTACCCACATTTTAATGAAGGTGGAGCTGAGCCGT
AGAACTCTCTGGGAGCCATCCAACCTGGCTGTGGCTCATAACAAGGTATTGATCACTTCCTTTGGCCTGAGTGAG
TCCAGGGTGCCTAGACAAGAGGTAGCAGCCTGTGGATGTCCAGCACCTTTCAGGGAATACAGGGCCCAATCTGG
CACATGCCCCTTTTCTCCAGGCCAGAGCAGGGGCTGTTGCCGAAAGGCTGTGGAGCAACAAGTTGACATCTGA
CCTGACATTTGCCTATGAACGTTTGTACACTTCCGCTGTGAATTGCTGAGGTAAGCAAGCTGTGGGGCCTTCGC
AAGGCGGAGCAGGCCAGATCCAGGGCTGGGGAACCCCTTAGAGAGAGGAAGACAATAATTAACAATAGCTAACAC
TTACAGAGGCTTATAGTCAGCCCTCATCCACGGATTCAACCAACTGCGATAAAAAGTATTCAGGAAAAAAAAAAT
ACAACAAAAATGGTACAAATAAAAAATACTGTATAACAACCT

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FIGURE 4246

CCAGAAAGGGGCAGGCTGAGGCTGGGGGAGGGGCTCAAGGGAGCCAGCTGGGAGGGCCAGGCAGGCAGTGC GG
AGCTGGCCGTGGGCTGCCTACCCCTTTCATCTCTGCAACTCCTTCCTCCCTGGGCCTCCCTTCTGGAGAAGGGCCA
GAGAATGTCGTCCAGCCAGCAGGGAACAGACCTCCCCGGGGCCACAGAGGACTACTCCTATGGCAGCTGGTA
CATCGATGAGCCCCAGGGGGGCGAGGAGCTCCAGCCAGAGGGGGAAGTGCCCTCCTGCCACACCAGCATACCACC
CGGCCTGTACCACGCCTGCCTGGCCTCGCTGTCAATCCTTGTGCTGCTGCTCCTGGCCATGCTGGTGAGGCGCCG
CCAGCTCTGGCCTGACTGTGTGCGTGGCAGGCCCGGCCTGCCAGCCCTGTGGATTTCTTGGCTGGGGACAGGCC
CCGGGCAGTGCCTGCTGCTGTTTTTCATGGTCCTCCTGAGCTCCCTGTGTTTTGCTGCTCCCCGACGAGGACGCATT
GCCCTTCTGACTCTCGCCTCAGCACCCAGCCAAGATGGGAAAAGTGGGCTCCAAGAGGGGCCTGGAAGATACT
GGGACTGTTCTATTATGCTGCCCTCTACTACCCCTCTGGCTGCCTGTGCCACGGCTGGCCACACAGCTGCACACCT
GCTCGGCAGCACGCTGTCTGGGCCCCACCTTGGGGTCCAGGTCTGGCAGAGGGCAGAGTGTCCCCAGGTGCCCAA
GATCTACAAGTACTACTCCCTGCTGGCCTCCCTGCCTCTCCTGCTGGGCCTCGGATTCTGAGCCTTTGGTACCC
TGTGCAGCTGGTGAGAAGCTTCAGCCGTAGGACAGGAGCAGGCTCCAAGGGGCTGCAGAGCAGCTACTCTGAGGA
ATATCTGAGGAACCTCCTTTGAGGAAGAAGCTGGGAAGCAGCTACCACACCTCCAAGCATGGCTTCTGTCTCTG
GGCCCGCTGTGCTTGAGACACTGCATCTACACTCCACAGCCAGGATTCCATCTCCCGCTGAAGCTGGTGCTTTC
AGCTACACTGACAGGGACGGCCATTTACCAGGTGGCCCTGCTGCTGCTGGTGGGCGTGGTACCCACTATCCAGAA
GGTGAGGGCAGGGGTCAACACGGATGTCTCTACCTGCTGGCCAGCTTTGGAATCGTGCTCTCCGAGGACAAGCA
GGAGGTGGTGGAGCTGGTGAAGCACCATCTGTGGGCTCTGGAAGTGTGCTACATCTCAGCCTTGGTCTTGTCTCTG
CTTACTACCTTCTGGTCTGATGCGCTCACTGGTGACACACAGGACCAACCTTCGAGCTCTGCACCGAGGAGC
TGCCCTGGACTTGAGTCCCTTGATCGGAGTCCCATCCCTCCCGCCAAGCCATATTCTGTTGGATGAGCTTCAG
TGCCTACCAGACAGCCTTTATCTGCCTTGGGCTCCTGGTGCAGCAGATCATCTTCTTCTGGGAACACGGCCCT
GGCCTTCTGGTGCTCATGCCTGTGCTCCATGGCAGGAACCTCCTGCTCTTCCGTTCCCTGGAGTCTCTGTTGGC
CTTCTGGCTGACTTTGGCCCTGGCTGTGATCCTGCAGAACATGGCAGCCCATTTGGGTCTTCCCTGGAGACTCATGA
TGGACACCCACAGCTGACCAACCGGCGAGTGCTCTATGCAGCCACCTTTCTTCTTCCCCCTCAATGTGCTGGT
GGGTGCCATGGTGGCCACCTGGCGAGTGCTCCTCTCTGCCCTCTACAACGCCATCCACCTTGGCCAGATGGACCT
CAGCCTGCTGCCACCGAGAGCCGCACTCTCGACCCCGGCTACTACACGTACCGAACTTCTTGAAGATTGAAGT
CAGCCAGTCGCATCCAGCCATGACAGCCTTCTGCTCCCTGCTCCTGCAAGCGCAGAGCCTCCTACCCAGGACCAT
GGCAGCCCCCAGGACAGCCTCAGACCAGGGGAGGAAGACGAAGGGATGCAGCTGCTACAGACAAAGGACTCCAT
GGCCAAGGGAGCTAGGCCCGGGGCCAGCCGCGGCAGGGCTCGCTGGGGTCTGGCCTACACGCTGCTGCACAACCC
AACCCTGCAGGTCTTCCGCAAGACGGCCCTGTTGGGTGCCAATGGTGCCAGCCCTGAGGGCAGGGAAGGTCAAC
CCACCTGCCCATCTGTGCTGAGGCATGTTCTGCTACCATCCTCCTCCCTCCCGGCTCTCCTCCCAGCATCAC
ACCAGCCATGCAGCCAGCAGGTCTCCGGATCACTGTGGTTGGGTGGAGGTCTGTCTGCACTGGGAGCCTCAGGA
GGGCTCTGCTCCACCCACTTGGCTATGGGAGAGCCAGCAGGGGTCTGGAGAAAAAACTGGTGGGTTAGGGCCT
TGGTCCAGGAGCCAGTTGAGCCAGGGCAGCCACATCCAGGCGTCTCCCTACCCTGGCTCTGCCATCAGCCTTGAA
GGGCCTCGATGAAGCCTTCTCTGGAACCACTCCAGCCAGCTCCACCTCAGCCTTGGCCTTCACGCTGTGGAAGC
AGCCAAGGCACTTCTCACCCCTCAGCGCCACGGACCTCTCTGGGGAGTGGCCGGAAGCTCCCGGGCCTCTGG
CCTGCAGGGCAGCCCAAGTCATGACTCAGACCAGGTCCACACTGAGCTGCCACACTCGAGAGCCAGATATTTT
TGTAAGTTTTTATGCCTTTGGCTATTATGAAAGAGGTTAGTGTGTTCCCTGCAATAAACTTGTTCCTGAGAAAAA
AA

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FIGURE 4247

MSSQPAGNQTSFGATEDYSYGSWYIDEPQGGEELQPEGEVPSCHTSIPPGLYHACLASLSILVLLLLAMLVRRRQ
LWPDVCVRGRPGLPSPVDFLAGDRPRAVPAAVFMVLLSSLCLLLPDEDALPFLT LASAPSQDGKTEAPRGAWKILG
LFYYAALYYPLAACATAGHTAAHLLGSTLSWAHLGVQVWQRAECPQVPKIYKYYSLLASLPLLLGLGFLSLWYPV
QLVRSFSRRTGAGSKGLQSSYSEEYLRNLLCRKKLGSSYHTSKHGFLSWARVCLRHCIYTPQPGFHLPLKLVLSA
TLTGTAIYQVALLLLVGVVPTIQKVRAGVTTDVSYLLASFGIVLSEDKQEVVELVKHHLWALEVCYISALVLSCL
LTFVLVLMRSLVTHRTNLRALHRGAALDLSPLHRSPHPSRQAIFCWMSFSAYQTAFICLGLLVQQIIFFLGTTALA
FLVLMFVLHGRNLLLFRSLESSWPFWLTALAVILQNMAAHWVFLETHDGHQPQLTNRRVLYAATFLLFPLNVLVG
AMVATWRVLLSALYNAIHLGQMDLSLLPPRAATLDPGYYTYRNFLKIEVSQSHPAMTAFCSLLLQAQSLLPRTMA
APQDSL RPGEDEGMQLLQTKDSMAKGARPGASRGRARWGLAYTLLHNPTLQVFRKTALLGANGAQP

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FIGURE 4248

GGCACGAGGGGCGCTGGGGCCCTGGGCAGCGGGGCTCGATGTGTGTGTCAGCCAAGTAGCTGGTCCCACTGGAGCG
GTGAGGTCGCCACCGGATAGTGTTCCTGCCCCATTACTAGCGATCTGTGACCTTGGGCCAGTGATTTTACTGAGT
CTTGCTTCCCTCATCTTTAAAATGTGGCTAATGCCTGCCTTAGGGAACCGTTGTGAGGATTAAGTGAGACATGGT
ATATAAAACGACCTCCTTCTGGCATAAACTTGAGGTGGAAGATACCTTGAGGATGCTTGAAGGTCTGCTAGGCAG
CTTCACAGCCTTTTCTTTCCTCTCTCTATCAGAGGTCTCTTTGGAAGCAATAATGATGACTATAACAAGAACTT
ATCTTGCTTTGCAAGATTCTTCCGCCGTGAGAGTTTCTGATTTATTTTCTGGGGTTCCATGTATGCCAGGGAGAA
AGAGAGAGCGCGAAAGAGAGAGGATGCTCTCTCTCAGACTGGCACCTGGCGGTGAAGCTGGCTGACCAGCCACTTA
CTCCAAAGTCTATTCTTCGGTTGCCAGAGACAGAACTGGGAGAATACTCGCTAGGGGGCTATAGTATTTCAATTC
TGAAGCAGCTTATTGCTGGCAAACCTCCAGGAGTCTGTTCCAGACCCTGAGCTGATTGATCTGATCTACTGTGGTC
GGAAGCTAAAAGATGACCAGACACTTGACTTCTATGGCATTCAACCTGGGTCCACTGTCCATGTTCTGCGAAAGT
CCTGGCCTGAACCTGATCAGAAACCGGAACCTGTGGACAAAGTGGCTGCCATGAGAGAGTTCCGGGTGTTGCACA
CTGCCCTGCACAGCAGCTCCTCTTACAGGGAGGCGGTCTTTAAGATGCTCAGCAATAAGGAGTCTCTGGATCAGA
TCATTGTGGCCACCCAGGCCTCAGCAGTGACCCTATTGCTCTTGGGGTTCTCCAGGACAAGGACCTCTTCTCTG
TCTTCGCTGATCCCAATATGCTTGATACGTTGGTGCCTGCTCACCCAGCCCTCGTCAATGCCATTGTCTGGTTC
TGCACTCCGTAGCAGGCAGTGCCCAATGCCTGGGACTGACTCCTCTTCCCGGAGCATGCCCTCCAGCTCATACC
GGGATATGCCAGGTGGCTTCTGTTTGAAGGGCTCTCAGATGATGAGGATGACTTTCACCCAAACACCAGGTCCA
CACCTCTAGCAGTACTCCAGCTCCCGCCCAGCCTCCCTGGGGTACAGTGGAGCTGCTGGGCCCCGGCCCCATCA
CCCAGAGTGAGCTGGCCACCGCCTTGGCCCTGGCCAGCACTCCGGAGAGCAGCTCTCACACACCGACTCCTGGCA
CCCAGGGTCATTCTCAGGGACCTCACCAATGTCTCTGGTGTCCAGTCAGGGACGCCATCACCAATGATCTCT
TCAGCCAAGCCCTACAGCATGCCCTTCAAGCCTCTGGGCAGCCCAGCCTTCAGAGCCAGTGGCAGCCCCAGCTGC
AGCAGCTACGTGACATGGGCATCCAGGACGATGAGCTGAGCCTGCGGGCCCTGCAGGCCACCGGTGGGGACATCC
AAGCAGCCCTGGAGCTCATCTTTGCTGGAGGAGCCCCATGAAGTCCCTGCTTCCCCTGAACCCCCAGCAAGTTGC
AGAGGCTACTGCCCTTGGGAGGCACTCATGAAGGTGCCTCCATCTCTCCCTTCCCCAATATACCTGATGGTCAAC
TCTCAA

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FIGURE 4249

MSLSDWHLAVKLADQPLTPKSILRLPETELGEYSLGGYSISFLKQLIAGKLQESVPDPELIDLIYCGRKLKDDQT
LDFYGIQPGSTVHVLKSWPEPDQKPEPVDKVAAMREFRVLHTALHSSSSYREAVFKMLSNKESLDQIIIVATPGL
SSDPIALGVLQDKDLFSVFADPNMLDTLVPAPALVNAIVLVLHVSAGSAPMPGTDSSSRSMPSSTYRDMPPGGFL
FEGLSDDDDFHPNTRSTPSSSTPSSRPASLGYSAGAGRPITQSELATALALASTPESSHTPTPGTQGHSSGT
SPMSSGVQSGTPTITNDLFSQALQHALQASGQPSLQSQWQPLQQLRDMGIQDDELSLRALQATGGDIQAALILIF
AGGAP

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FIGURE 4250

GGCGGGACGCGCACGCTCACAGTGAGGTCTCAAAAGATCCCCACCTCAGTTTTCTCATCTGGAAAGTGGGGCCTC
GTAATCCTGTCCGACCCGGCGCGGGACAGTAGGTGTGAGGGATTTTGGTGACCCACGCTCGAGGCCTCTGCAAA
AGGGGGCTGTCCAGTGGCCAGAGACGCAGCCGGCGGGGCTTTTGTCTAGCGGGGGAGTCTTAAGTGAAGGCCA
CGCAGGCCGGCAGGAAGCCGCTCCACAGGAGGGGGCTCAAGGAGAGGGGATCTCCTCCCTCCAGACTCCGGCCCC
GCCAGAGTAGCTCTAGGGTATCTTCCAGAACTGCCCCGCACGCACTGGCGAGCTGGGAGCGCCACCACGGCTT
TCAAAAAACCCGCACACACCAAGATAATAATGTGTGCTTCGCTCGTTTCGCGCAAGCGGAGTCGCGTCCGCCTTC
CCGAGCTCCGGCACACAGACCTCAGGCCGCTCTCGCGCTCTCCGGGGCCCCGAGAACAATGCCCGTCCTCTCCGC
GCGCAGGAGGGAGTTGGCGGACCACGCGGGGTCGGGGCGACGGAGCGGGCCCAGCCCCACGGCCAGGTGCGGGCC
CCACCTCTCGGCTCTGAGAGCCCAGCCGGCCCCGGGCGCGCACCTGTGAGGTGCGGGGACCTACGTGCGCCGCGA
CACGGCGGGAGGCGGGCCGGGCCAGGCTCGTCCCCTCGGCCCTCCCGAACTAGTCTCCTAGGCCGCGGGCGCCG
CCGGAGCGGAGAGGGCTGGTGCCCCGGAGCCTTCGAGTCGGGGGCTAGAGCGGCCAGGCCTCCGAGCCGGGTGGA
GCCGAGGCTGGCGACGGCTGCGTCACGCGAGGGGGCGGGGCTGCCACGGGCGGAGGTGCGAGCCGGAAGCGGAAG
AGGCGCTCGGAGCGGGGAGTGGGGCCTAGCTGCAGCCGGAGCCTGGGAGACGCCATGACCGCCTGCCCTACCAGA
GGAGGTACCGGGAGCGCCGTGACAGCGATACATACCGGTGTGAAGAGCGGAGCCCATCCTTTGGAGAGGACTACT
ATGGACCTTCACGTTCTCGTCATCGTCGGCGATCGCGGGAGAGGGGGCCATACCGGACCCGCAAGCATGCCCCACC
ACTGCCACAAACGCCGCACCAGGTCTTG TAGCAGCGCCTCCTCGAGAAGCCAACAGAGCAGTAAGCGCAGCAGCC
GGAGTGTGGAAGATGACAAGGAGGGTCACCTGGTGTGCCGATCGGCGATTGGCTCCAAGAGCGATATGAGATTG
TGGGGAACCTGGGTGAAGGCACCTTTGGCAAGGTGGTGGAGTGCTGGACCATGCCAG

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FIGURE 4251

ATGTATAATATATCTAACTGTGGGTCACAGCCCCCTCCCACGACCGTCCACAAACCAGTAGCCTCCCTTCGCTCC
CACCTCCGCGCCGACGGGCCTGGAGCTCCTCCGCACACCACACCAAGCCGACCACTCAACACCAGAGGACCCACA
GAAGAATTCTCTCCACGCCCCACCCACAGCATCGGCCTTCACCACCGCCGCCGCTGCCGGAAGCGCCCCACGT
CTCCACGCCACCACCGTGAGTGCTCAGTGTGGGCCCCCTTCCTGTTATTGTGAACGTGTAGCCAAGATACGGCTT
GGTGATGAGAAGTGCAACATCTCTTGTAACCCAGTGCACCAGTCCAGGGGTGTGGAGAG

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FIGURE 4252

ATGGCGGCTGCGCCGGCCTTGAAGCACTGGCGCACCCACGCTGGAGCGGGTGGAGAAGTTCTGTGCGCCGCTCTAC
TTTACCGACTGTAACCTCCGCGGCAGGCTTTTTGGGGCCAGCTGCCCTGTGGCTGTGCTCTCCAGCTTCTTGACC
CCGGAGAGACTTCCCTACCAGGAGGCAGTCCAGCGGGACTTCCGCCCCGCGCAGGTCGGCGACAGCTTCGGACCC
ACATGGTGGACCTGCTGGTTCCGGGTGGAGCTGACCATCCAGAGGCATGGGTGGGCCAGGAAGTTCACCTTTGC
TGGGAAAGTGATGGAGAAGGTCTGGTGTGGCGTGATGGAGAACCCTGTCCAGGGTTTAACCAAAGAGGGTGAGAAG
ACCAGCTATGCTCTGACTGACAGGCTGGGGGAAAGAGACCCCCGAAGCCTCACTCTCTATGTGGAAGTAGCCTGC
AATGGGCTCCTGGGGGCCGGGAAGGGAAGCATGATTGCAGCCCCGTGACCCCTGAGAAGATGTTCCAGCTGAGCCGG
GCTGAGCTAGCTGTGTTCCACCGGGATGTCCACATGCTCCTGGTGGATCTGGAGCTGCTGCTGGGCATAGCCAAG
GGCCTCGGGAAGGACAACCAGCGCAGCTTCCAGGCCCTGTACACAGCCAATCAGATGGTGAACGTGTGTGACCCCT
GCCCAGCCCCGAGACCTTCCAGTGGCCAGGCCCTGGCCTCCAGGTTCTTTGGCCAACATGGGGGTGAAAGCCAA
CACACCATTTCATGCCACAGGGCACTGCCACATTGATACAGCCTGGCTTTGGCCCTTCAAAGAGACTGTGAGGAAA
TGTGCCCGGAGCTGGGTGACCGCCCTGCAGCTCATGGAGCGGAACCCTGAGTTTCATCTTTGCCTGCTCCCAGGCG
CAGCAGCTGGAATGGGTGAAGAGCCGCTACCCCTGGCCTGTACTCCCGCATCCAGGAGTTTGCCTGCCGTGGGCGAG
TTTGTGCCCTGTGGGGGGCACCTGGGTGGAGATGGATGGGAACCTGCCAGTGGAGAGGCCATGGTGAGGCAGTTT
TTGCAGGGCCAGAATTCTTTCTGCAGGAGTTTGGGAAGATGTGCTCTGAGTTCTGGCTGCCGGACACCTTTGGC
TACTCAGCACAGCTCCCCAGATCATGCACGGCTGTGGCATCAGGCGCTTTCTCAGCCAGAAATTGAGCTGGAAT
TTGGTGAACCTCCTTCCACACCATACATTTTCTGGGAGGGCCTGGATGGCTCCCGTGTACTGGTCCACTTCCCA
CCTGGCGACTCCTATGGGATGCAGGGCAGCGTGGAGGAGGTGCTGAAGACCGTGGCCAACAACCGGGACAAGGGG
CGGGCCAACCACAGTGCCTTCTTGGCTTTGGGGATGGGGGTGGTGGCCCCACCAGACCATGCTGGACCGC
CTGAAGCGCCTGAGCAATACGGATGGGCTGCCAGGGTGCAGCTATCTTCTCCAAGACAGCTCTTCTCAGCACTG
GAGAGTGA CTGAGAGCAGCTGTGCACGTGGGTGGGGAGCTCTTCTTGGAGCTGCACAATGGCACATACACCACC
CATGCCCAGATCAAGAAGGGGAACCGGGAATGTGAGCGGATCCTGCACGACGTGGAGCTGCTCAGTAGCCTGGCC
CTGGCCCCGAGTGGCCAGTTCCTATACCCAGCAGCCAGCTGCAGCACCTCTGGAGGCTCCTTCTTCTGAACCAG
TTCCATGATGTGGTGACTGGAAGCTGCATCCAGATGGTGGCAGAGGAAGCCATGTGCCATTATGAAGACATCCGT
TCCCATGGCAATACACTGCTCAGCGCTGCAGCCGACGCCCTGTGTGCTGGGGAGCCAGGTCTGAGGGCCTCCTC
ATCGTCAACACACTGCCCTGGAAGCGGATCGAAGTGATGGCCCTGCCCAAACCGGGCGGGGCCACAGCCTAGCC
CTGGTGACAGTGCCAGCATGGGCTATGCTCCTGTCTCTCCCCCACCCTACTGCAGCCCCCTGCTGCCCCAGCAG
CCTGTGTTCTGATGCAAGAGACTGATGGCTCCGTGACTCTGGACAATGGCATCATCCGAGTGAAGCTGGACCCA
ACTGGTCGCTGACGTCCCTTGGTCTGTGGCTCTGGCAGGGAGGCCATTGCTGAGGGCGCCGTGGGGAACCAG
TTTGTGCTATTTGATGATGTCCCCTTGTACTGGGATGCATGGGACGTATGGACTACCACCTGGAGACACGGAAG
CCTGTGCTGGGCCAGGCAGGGACCCTGGCAGTGGGCACCGAGGGCGGCCCTGCGGGGCAGCGCCTGGTTCTTGCTA
CAGATCAGCCCCAACAGTGGGCTTAGCCAGGAGGTTGTGCTGGATGTTGGCTGCCCCCTATGTCCGCTTCCACACC
GAGGTACACTGGCATGAGGCCCAAGTTCTTGAAGGTGGAGTTCCCTGCTCGCGTGGCGAGTTCCCAGGCCACC
TATGAGATCCAGTTTGGGCACCTGCAGCGACCTACCCACTACAATACCTCTTGGGACTGGGCTCGATTTGAGGTG
TGGGCCCCATCGCTGGATGGATCTGTGAGAACACGGCTTTGGGCTGGCCCTGCTCAACGACTGCAAGTATGGCGCG
TCAGTGCGAGGCAGCATCCTCAGCCTCTCGCTCTTGGCGGGCGCCTAAAGCCCCGGACGCTACTGCTGACACGGGG
CGCCACGAGTTACCTATGCACTGATGCCGCACAAGGGCTCTTTCCAGGATGCTGGCGTTATCCAAGCTGCCTAC
AGCCTAAACTTCCCCCTGTTGGCTCTGCCAGCCCCCAGCCAGCGCCCCGCCACCTCCTGGAGTGCGTTTTTCCGTG
TCTTACCCCGGGTCGTATTGGAGACCGTCAAGCAGGCGGAGAGCAGCCCCCAGCGCCGCTCGCTGGTCTCTGAGG
CTGTATGAGGCCACGGCAGCCACGTGGACTGCTGGCTGCACTTGTGCTGCGGTTTCCAGGAGGCCATCCTCTGC
GATCTCTTGGAGCGACCAAGACCTGCTGGCCACTTGACCTTTCGGGACAACCGCCTGAAGCTCACCTTTTCTCCC
TTCCAAGTGCTGTCCCTGTTGCTCGTGTCTCAGCCTCCGCCACACTGAGTCCCTGGGGCTGGGGTTTTGTTTGTA
GAAGGCTCTGGGGACTCCTAATTTCTGCTTCCCCAGCCTAAAGCAGGGATCAGTCTTTTCTGTGGAATAAATCC
TTGGATCGGG

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FIGURE 4253

MGVVAPPRPMLDRLKRLSNTDGLPRVQLSSPRQLFSALES DSEQ LCTWVGELFLELHNGTYTTHAQIKKGNRECE
RILHDVELLSSLALARSAQFLYPAAQLQHLWRLLLL NQFHDVVTGSCIQMVAEEAMCHYEDIRSHGNTLLSAAAA
ALCAGEPGPEGLLIVNTLPWKRIEVMALPKPGGAHSLALVTVP SMGYAPVPPPTSLQPLLQQPVFVVQETDGSV
TLDNGIIRVKLDPTGRLTSLVLVASGREATAEGAVGNQFVLFDDVPLYWDAWDVMDYHLETRKPVLGQAGTLAVG
TEGGLRGS AWFL LQISPNSRLSQEVVLDVGC PYVRFHTEVHWHEAHKFLKVEFPARVRSSQATYEIQFGHLQRPT
HYNTSWDWARFEVWAHRWMDLSEHGFG LALLNDCKYGASVRGSILSLSLLRAPKAPDATADTGRHEFTYALMPHK
GSFQDAGVIQAAYS LNFPLLALPAPSPAPATSWSAFSVSSPAVVLETVKQAESSPQRRSLVLRLYEAHGSHVDCW
LHLSLPVQEAILCDLLERPDPAGHLTLRDNRLKLTFS PFQVLSLLLVLQPPPH

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FIGURE 4254

GTAAC TTGGCTCCGGGGGCTCCGCTCGCCTGCCCCACGCCGCCGCCACCCAGGACCGCGCCGCCGGCCTCTGC
CGCGAACAAACCTTCTGACGGCCCTCGCTGTGCAGGCCAGGATGCCTCTCCCCCATCCGCCCCCGCTGCGGAAA
GTTAAGTTTGAAGAGGGGGGAAGAGGGGAACATGGACATGAAGAGGAGGATCCACCTGGAGCTGAGGAAC TGGAC
CCCGTCAGCTGTTTCGAGAACTTGTCTTGGACAATTGCAAATCAAATGATGGAAAAATTGAGGGCTTAACAGCTGA
ATTTGTGAACCTTAGAGTTCCTTAGTTTAATAAATGTAGGCTTGATCTCAGTTTCAAATCTTCCCAAGCTGCCTAA
ATTGAAAAAGCTTGAACCTCAGTGAATAAGAAATCTTTGGAGGTCTGGACATGTTAGCTGAAAAGCTTCCAAATCT
CACACGTCTAAACTTAAGTGGAAATAAACTGAAAGATATCAGCACCTTGGAACCTTTGAAAAAGTTAGAATGTCT
GAAAAGCCTGGACCTCTTTAACTGTGAGGTTACTAACATGAATGACTACTGAGAGTGTCTTCAAGCTCCTGCCCC
AGCTTACCTACATGGATGGCTATGACCAAGAGGACCAGGAGGAACCTGACTCAGATGCTGAGGTGGATGGTGTGG
ATGAAGAGTAGGAGGGCGAAGAAGAAAGACGAAGAAGACGAGGAGGATGAAGATGGTGAAGAAGAGGAGTTTGATG
AAGAAGATGATTAAGACCCCGATGACCTGCAGAAACAGAACTGTTTAGTATCGGTTGGACTGCTCATGGATTTG
GTAGCTGTTAAAAAAAAAAAAAAAAAGGTAGCTGATACAAACCCAGGACACCCACCCACCCAAAGAGCCAAAGA
ATAGTTCCTGTGACATTCCGTCTTCTCCATGTAGTCCCTCTTGGTAATCTACCAATCTACCATCGAGCTTAGGG
ACTTCACCCCAACAAAATTGTAAGTGTGTTAGGTTTTTGTGTGAGACTCTTGCTGTAGCGTAGATAGCTGTGAT
TGGTGAGTCAACCATCTGTGGCTACCAGTTACACTGGGACTGTAACAGCATTTTTTACTTTCTGTACAACAAAAAT
CTTTGTAAATAAAATCTTAACATT

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FIGURE 4255

MDMKRRIHLELRNWTPSAVRELVDNCKSNDGKIEGLTAEFVNLEFLSLINVGLISVSNLPKLPKLESENK
IFGGLDMLAEKLPNLTRLNLSGNKLKDISTLEPLKKLECLKSLDLFNCEVTNMNDY

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FIGURE 4256

GAGCGGCGCCCGCTCGAGAGAAGTGGGGCCGAGATCGCGCCGTCCCAGCCCGCCCGCCGGCGTCTGCGCTGCTCC
GGCGCCCTTACCCCTGCTGGCCCTTGCAAGGCGCGACCGGCGGCCATGCAGCCCCGGGGCTGAGGCCGCCCCATG
GCAAAGCCGGCGGTCCCGGCGACGACGGCGCATGGAGAACTTCGTAAAGTGCGCTCCGAAGAGGCGCCAGCGGG
GTGCGGGGCGGAGGGAGGCGGCCGGGCTCCGGCCCCCTTCGCAGACCTGGCGCCGGGCGCGGTGCACATGCGGGT
CAAGGAAGGCAGCAAGATCCGGAACCTGATGGCCTTCGCCACCGCCAGCATGGCGCAGCCAGCCACGCGCGCCAT
CGTCTTCAGCGGCTGCGGCCGGGCCACCACCAAAACCGTCACGTGCGCCGAGATCCTCAAGCGCCGCTGGCGGG
CCTGCACCAGGTACGCGGCTGCGCTACCGGAGCGTACGCGAGGTGTGGCAGAGCCTCCCGCCTGGGCCCCACGCA
GGGTGAGACGCCTGGCGAGCCGGCCGCTAGTCTCAGCGTACTTAAGAACGTGCCCGGCTCGCCATCCTACTTTC
CAAGGACGCGCTGGATCCGCGACAGCCCGGTACCAGCCCCGAATCCCCATCCTGGTCCCTCGTCCCCGCCAGC
CGCGCCAGCGTCCAAGAGGAGCCTAGGGGAACCCGCAGCTGGAGAAGGCTCCGCGAAGCGATCGCAACCCGAGCC
AGGGGTTGCGGACGAGGATCAGACGGCCTGAAACTCCGGACTGTGGGCCACCTAGTCCGGCAGGATCTTCCGCCA
GCGCCTCCACCTTCAGATGTACCTCCAGCCTTTCACTCCTCGGTCTCCGGAGCCCACAACCTGGACACAGCTCC
TCAAGACAGGTAGCATGGACCTTAAGGCGACAAGAGAGGGGCCCCAGGAGTGGCAGGAGAGGATCCCCGACCACC
CTAGGGAAACTTCGTGCGATAATTGCTGCTTATGCCCCTGTTGCGTGAAGACACGGAACCTTCACCTTTTCTGGGA
CCTTCTTTGGGGGAGAATGGTGGACAGTGGGATTCTGGAACTTGTTTGGGACCCCCAAGGGTTAAAGCCACCCA
GCATTACGAAGAGCACCTGAAGTATGGAAGCTGAGAAGAGTTATTGGAATCACCCCCACCGTTGACAGAGGAAG
GCAGGGGGTGAGAATTAAGTCTTGAGGGTAGGAGAGTCTGAGATGTGGGGGCCCTATTCCGCTCCCCGCCCTGG
GACAGTTTTCTTTCTAGTTTTCTTTCCCCTGCTTCAGAGGAGCATCTCTGAGGGTTCTAGCTCTTTTAACACCC
CTTTTCCCCCTGCTGGCCCAGAGGGAGACCCAGGACTGAACTCTCCAGGCCTCCTCCCCTGAGCCCTGCAGCTGG
CTGGAGTCTTGCTTCCAATAAAACAAGCACA

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FIGURE 4257A

GGCAGCTAGGAGGGTTGCTCCGGGCTTGGTGCTCACTGCGACTTCCC GCGCAGGGCCCCGGTCGGACTAGGACCCG
CGGCCCTGAGAGACGCTGGAGGATGCGGACGCGGAGGCCGCTGGGGTAGCGGCGGCGGGAGTCTTGCGCTCTGC
AGGT CAGAAGTTGAGTAGCAGGGGCC TAGGAGGGCTCGAAGCCTTACAGCGATGGCAGAGAAGCGACCCCTGAG
AACCCTGGGGCCTGTGATGTATGGCAAGCTGCCCGCTTAGAGACAGACTCCGGGCTC GAGCACAGCCTGCCCCA
CTCTGTTGGTAACCAGGATCCCTGCACCTACAAGGGGTCTACTTCTCCTGCCCCATGGCAGGTACTCCTAAGGC
CGAGTCTGAGCAGTTGGCGTCTTGACCCCATACCCACCTTGTACTCTACCGGTATGGCAGGACCCCCACTTCA
GGCAGACAACCTGCTGACCAACTGCCTGTTTCTACCGCTCGCCAGCAGAAGGCCCTGAGAAGATGCAGGACTCCAG
CCCTGTTGAGCTCCTGCCCTTCAGTCCCCAGGCTCACTCCTACCCAGGCCACCCTGGCAGCACCCAAACCTGT
CTACCGCAACCCCTCTGTGCTATGGGCTCTCAACTTGTCTGGGGGAAGGAGCAGTGAAGAGGCCACTGGATGTTGA
CTGGACTCTGGCGACTGGGCCCCCTGTTGCCCTCAGCTGACCCACCTGCTCTCTGGCCCCAGCTCCTAGCAAGGG
CCAGACTCTGGATGGCACCTTCTTGCGGGGGGTGCCAGCTGAGGGGTCCAGTAAAGACTCCTCAGGGAGCTTCTC
CCCATGCCAGCCCTTCTTGAGAAATATCAGACCATCCACAGCACGGGCTTCTTGCCCTCCAGGTACACAGGTCC
TTACCCTAGGAAC TCAAGCAAGCAATGTCTGAGGGGCCCTCAAGTCTTGAGCCCAGCTGGCCCAGCCCCCTGGG
GCCACCCCTGT CAGGACACCGGGGCCACCCACTACCCACCACCCACCACCCACCACCCACCCTTCACAGGCCCT
GCCTTGCCCTCCAGCCTGTGCGCACCCAGAGAAGCAGGGCAGCTACAGCCCAGCACTCCCACTGCAGCCTCTGGG
GGGCCACAAGGGGACCGGTACCAGGCTGGTGGGCTGGGCAGCCCCTACCTGAGGCAGCAGGCAGCCCAGGCACC
TTACATTCCCCCACTGGGGCTGGACGCTTACCCCTACCCCTCTGCCCTCTCCCAGCACCCCTCTCCAGGCCTCAA
GCTGGAGCCGCTCTCACTCCACGGTGCCATTGGACTTTGCCCCCAGACACTGAGTTTTCTTATGCCCGGGA
TGACCTCTCTCTATGGAGCATCCCTGGGCTTGGAGGGACACCCTTCCCAGAACATGTGCGGGCTGTGCC
ACAGCCTGGTGCTTCCAGAGGGCATGCCAGCCTTTGCCAGCGAGCCAGCCCTGCTCAGAGCCTGTGAGGCCTGC
ACAGGAAGCCGAAGAGAAGACCTGGCTGCCAGCTGCAGGAAGAGAAGCTCCAGCCCCGGCTCAGTGAGCACTC
TGGGCCGCCCATCGTCATCCGAGACAGTCCAGTTCCCTGTACCCCCCAGCACTGCCCCCTGTGCCCGGGAGTG
CCAGTCTCTTCCACAGAAGGAGGGCGCAAGGCCACCCAGCTCTCCACCAATGCCTGTCAATTGACAATGTCTTCAG
CCTGGCCCCCTACCGTGA CTATCTGGATGTGCCGGCACCCGAGGCCACA ACTGAGCCTGACTCTGCCACAGCTGA
GCCTGACTCAGCCCCAGCCACCAGTGAAGGT CAGGACAAAGGCTGCAGGGGGACCTGCCTGCCAGGAGGGCCC
CTCAGGGAGTAAACCCCTAAGGGGCTCACTTAAGGAGGAGGTAGCCCTGGATTGAGTGTGAGGAAGCCCACAGC
AGAGGCCTCCCCGTGCAAGGCTTCCCGTTCTGTGGAGCATGCCAAGCCTACTGCAGCCATGGATGTGCCAGATGT
GGGCAACATGGTGT CAGATCTGCCAGGCCTGAAAAAGATAGACACAGAAGCACCAGGCTTGCTGGGGTGCCAGT
GACCACAGATGCCATGCCAAGGACCAACTTCCACAGCTCTGTGGCCTTCATGTTCCGAAAGTTCAAGATCCTCCG
TCCGGCACCTTTGCCTGCAGCCGTGGTCCCGTCCACGCCACCTCAGTCTCTGCTCCCACACAGCCTGCACCCAC
CCCCACATCTGGGGCCATTGGACTGCGGATTCTCGCTCAACAGCCCTTGTCTGTGACCTGCTTCAGCCTGGCACT
GCCAGCCCTCCAGCCGTAGCTGTGGCCTCCCCTGCCCTGTCCAGCTCCATCCCCTGCTCCGGCTCGAGCTCA
GGCTCCAGCTTCAGCCCGGGATCCAGCTCCAGCTCCAGCTCCAGTTGCAGGCCCTGCTCCAGCATCTACTTCAGC
CCCAGGGGACTCCCTGGAGCAGCATTTTACAGGACTACATGCGTCCCTGTGTGATGCTATTTCTGGCTCCGTCGC
CCACTCTCCTCCAGAGAAGCTTCGCGAGTGGCTAGAGACGGCTGGGCCCTGGGGCCAGGCTGCGTGGCAGGACTG
CCAGGGTGTGCAGGGGCTGCTGGCCAAGCTGCTGTCTCAGCTGCAGCGCTTCGATCGCACCCACCGGTGCCCTT
CCCCATGTGGTGCGAGCTGGCGCCATCTTCGTGCCATTACCTGGTGAAGGAGCGGCTCTTCCCTCGGCTGCC
ACCCGCTTCTGTGGACCATGTGCTGCAGGAGCATCGTGTGGAGCTGCGGGCCACCACGCTGTGCGGAGGAGCGGGC
ACTGCGGGAGCTCGCCCTGCCAGGCTGCACCTACGCATGCTGAAGTTACTGGCGCTGCGCCAGCTGCCGGACAT
TTACCCCGACCTTCTCGGCCTGCAGTGGCGCGACTGTGTACGCCGCCAGCTGGGTGACTTTGACACTGAGGCTGG
AGCTGTGTCTCTCCTCAGAGCCCACTGTGGCCAGAGGTGAGCCAGAGAGCCTAGCCCTGGCTCAGAAGTCAACGGC
CCCCAAGGT CAGGAAGCCAGGCAGGAAGCCACCAACCCCTGGCCCCGAGAAAGCAGAGGCAGCTGCTGGGGGAAGA
GTCTGTGGTGCTTCCCCTACCCCTGTACAGTGCCAGCCACCTGGGCCCCACACTGAAGGCCCGCTTCCGAG
TCTGCTGGAGACCGCCTGGCTCAATGGCCTGGCTCTGCCACCTGGGGCCACAAGTCTCAAGACCAGACCAGCC
CTACCCCTGCCACAGCTGTGGACAGCCAGAGCCATCACCTGTAGCACTGGTTGCCAGTGTGTGTGTATAGCA
GTCACTCTCCACCCTTCCCTTCTGCTGCCAGCTGCCCGGGGCCACGAGTGGATGCTGGGGCTGTGGCTGCTC
CCCTGGAGGGGTTCATCTCTGACCTGTGGCCATT CAGGGTGGGCTGAAGAGCCCTGAGCTTTTAACGTGAG
GGTCTTTATTGGATAGGACTACTCCCTATTTCTTGCCTAGAGAACACACATGGGCTTGGAGCCCGACAGACCTG

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FIGURE 4257B

GGCTTGAATCCCGGCTCGTGTTCCTTGCTGCAGGACCTGGGCAAGAACTTCACCTCTGCTGAGCCCTCATTCCCC
ATGTGTAAAATGGGACAACGCAACCTACCTCACAGGGTTGTTGTGGGGATGCTGCCTGATACATACCCTGTCACC

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FIGURE 4258

MDVPDVGNMVSDLPGLKKIDTEAPGLPGVPVTTDAMPRTNFHSSVAFMFRKFKILRPAPLPAAVVPSTPTSAPAP
TQPAPTPTSGPIGLRILAQQPLSVTCFSLALPSPPAVAVASAPAPAPSPAPARAQAPASARDPAPAPAPVAGPA
PASTSAPGDSLEQHFTGLHASLCDALSGSVAHSPPEKLREWLETAGPWGQAAWQDCQGVQGLLAKLLSQLQRFDR
THRCFFPHVVRAGAI FVPIHLVKERLFPRLPPASVDHVLQEHVELRPTTLSEERALRELALPGCTSRMLKLLAL
RQLPDIYPDLLGLQWRDCVRRQLGDFDTEAGAVSSSEPTVARGEPESLALAQKSPAPKVRKPGRKPPTPGPEKAE
AAAGEESCGASPTPATASPPGPTLKA RFRSLLETAWLNG LALPTWGHKSSRPDQPSPCPQLLDSQSHHL

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FIGURE 4259

GTCTCCCGCGGGTCCGAGGGCGCTGGAACCCAGCGGCGGCGAAGCGGAGAGGAGCCCCGCGCGTCTCCGCCCC
CACGGCTCCAGGTCTGGGGTCTGCGCTGGAGCCGCGCGGGGAGAGGCGTCTCTGCGACCGCCGCGCCGCTCCC
GACCGTCCGGGTCCGCGGCCAGCCCCGGCCACCAGCCATGGGCTCTGGCCCCGCTCTCGCTGCCCTGGCGCTGTCTG
CCGCCGCGGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCCAGTGGCCAGGGCCTCAGAGGCTGAGCACCCTCTA
TTTGAGCGGCTGTTTGAAGATTACAATGAGATCATCCGGCCTGTAGCCAACGTGTCTGACCCAGTCATCATCCAT
TTCGAGGTGTCCATGTCTCAGCTGGTGAAGGTGGATGAAGTAAACCAGATCATGGAGACCAACCTGTGGCTCAAG
CAAATCTGGAATGACTACAAGCTGAAGTGAACCCCTCTGACTATGGTGGGGCAGAGTTTCATGCGTGTCCCTGCA
CAGAAGATCTGGAAGCCAGACATTGTGCTGTATAACAATGCTGTTGGGGATTTCAGGTGGACGACAAGACCAAA
GCCTTACTCAAGTACACTGGGGAGGTGACTTGGATACCTCCGGCCATCTTTAAGAGCTCCTGTAAAAATCGACGTG
ACCTACTTCCCCTTTGATTACCAAACTGTACCATGAAGTTCGGTTCTCTGGTCTACGATAAGGCGAAAAATCGAT
CTGGTCTCTGATCGGCTCTTCCATGAACCTCAAGGACTATTGGGAGAGCGGCGAGTGGGCCATCATCAAGGCCCA
GGCTACAAACACGACATCAAGTACAACCTGCTGCGAGGAGATCTACCCCGACATCACATACTCGCTGTACATCCGG
CGCCTGCCCTTGTCTACACCATCAACCTCATCATCCCTGCTGCTCATCTCCTTCTCACTGTGCTCGTCTTC
TACCTGCCCTCCGACTGCGGTGAGAAGGTGACCCCTGTGCATTTCGTCTCCTCTCCTTGACGGTGTTCCTCTG
GTGATCACTGAGACCATCCCTTCCACCTCGCTGGTCACTCCCTGATTGGAGAGTACCTCCTGTTTACCATGATT
TTTGTAACCTTGTCCATCGTCATACCGTCTTCTGCTCAACGTGCACTACAGAACCCCGACGACACACAATG
CCCTCATGGGTGAAGACTGTATTCTTGAACCTGCTCCCCAGGGTCATGTTTCATGACCAGGCCAACAAAGCAACGAG
GGCAACGCTCAGAAGCCGAGGCCCTCTACGGTGCCGAGCTCTCAAATCTGAATTGCTTCAGCCGCGCAGAGTCC
AAAGGCTGCAAGGAGGGCTACCCCTGCCAGGACGGGATGTGTTGTTACTGCCACCACCGCAGGATAAAAAATCTCC
AATTTAGTGCTAACCTCACGAGAAGCTCTAGTTCTGAATCTGTTGATGCTGTGCTGTCCCTCTCTGCTTTGTCA
CCAGAAATCAAAGAAGCCATCCAAAGTGTCAAGTATATTGCTGAAAATATGAAAGCACAAATGAAGCCAAAGAG
ATTCAAGATGATTGGAAGTATGTGTCATGGTGATTGATCGTATTTTTCTGTGGGTTTTACCCTGGTGTGCATT
CTAGGGACAGCAGGATTGTTTCTGCAACCCCTGATGGCCAGGGAAGATGCATAAGCACTAAGCTGTGTGCCTGCC
TGGGAGACTTCCTTGTGTCAGGGCAGGAGGAGGTGCTTCTAGTAAGAACGTACTTCTGTTATCAAGCTACCA
GCTTTGTTTTTGGCATTTCGAGGTTTACTTATTTTCCACTTATCTTGAATCATGCAAAAAAAAAAATGTCAAGA
GTATTTATTACCGATAAATGAACATTTAACTAGCCTTTTTGGTATGGTAAAGAGATGTCAAAATGTGATTCTATG
TGATTAGTATGCTATGCTATGGAATATACATGTAAAAATGTTTCTTTTAGTTGTTGAAACAAAACCTGGATAGAA
AAATGCTGTTTCAAGAAATATGAAAAGTCATTCAAGTTATCACTACAGATCTCCAGTAATTTTTCTTATTTAGCCCA
TAATCTCTTTGAAGGTTTATACTAATTCAGCAATCCCCCATCGTTACCCATTTCTTACCATGCATTTCTCGTTCT
TTACTGGGTCTAAAGGGCTATGCCTCCATTTAGAGAGCTTCAACTACTTCTCTGCATACTTCTAAATTATACT
ATGAGAAATCATGCCTAGTTATTCATTGTTAATATACTGTCTTAGTACACCATAAACTGGGTGGATTATAAACA
ACAGAAACTTCTCAGTTTTTGGAGGTGGGAGGTCCAAGGTCAAGGCACCAGCAAATTTGGTGTCTGGTGAAGGTC
CTCTTCTCAAAGGGTGCCCTTCTAGCTGTGTCTCACATGACTGAAGGGACTAGCTATCTCTGTGGGGTCTATTT
TATAAGGGCACTAACCCATTCATGAGAGCAGAGCCCCATGGCCTAATCACCTTTCCAAGGCCCCACCTTCTAT
CTAAGACAATCACGCTGGGAATAGGTTTCAACATATGAATTGGGGGAGGACACATTTGGACCACAGCATGAACCT
TTAGAACAGGGTTTCTCAGCCTTAGCACTACGGACATTTTGGGCTGGATAAAATATGTGTTGGTACAGAAATGGGGG
TATCCTGTGCATTGTAGGATCTTTAGCAGTACCCTAGCCTCAACTCACTAGATGCCAATGACATACCTTGCTTCT
TCACCAGTTATGATAACCAAGAAATGTCTCCATTGTTAAATGTCCCTTAGGAGCAAAATTTGCCCTGGTTGAGAA
ACATTGCTTTAGACAAATTTGTTAAGAGTATCATGTACTACACTTCTGAAACTTAACGTGATCATCACCAGTACA
GATGATTACAGAGAGAGACTGTTGAATCTTGTCTCACTAGTTTTTCTGTGCAAAAAATAAAATGGACAGAATT
GCAAAAAAAAAAAAAAAAAA

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FIGURE 4260

MGSGPLSLPLALSPPRLLLLLLLLSLLPVARASEAEHRLFERLFEDYNEIIRPVANVSDPVIIHFEVSMSQLVKVD
EVNQIMETNLWLKQIWNDYKLKWNPSDYGGAEFMRVPAQKIWKPDIVLYNNAVGDVFQVDDKTKALLKYTG EVTWI
PPAIFKSSCKIDVTYFPFDYQNCTMKFGSWSYDKAKIDLVLIGSSMNLKDYWESGEWAIKAPGYKHDIKYNCC
EIYPDITYSLYIRRLPLFY TINLIIPCLLISFLT VLVFYLPSDCGEKVTL C ISVLLSLTVFLLVITETIPSTSLV
IPLIGEYLLFTMIFVTL SIVITVFVLNVHYRTP THTMPSWVKTVFLNLLPRVMFMTRPTSNEGNAQKPRPLYGA
ELSNLNCFSRAESKGCKEGYPCQDGMCGYCHHRIKISNFSANLTRSSSSESVD AVL SLSALSPEIKEAIQSVKY
IAENMKAQNEAKEIQDDWKYVAMVIDRIFLWVFTLVCILGTAGLFLQPLMAREDA

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FIGURE 4261

GCGCATGCGCGGGGGCCATATTAGCAGCGGTTATTCGGTGAGCGGTGGTGGTTTATTCTTCCGCGGAGTTAAGGG
CTCCGTGGACATCTCAGGTCTTCAGGGTCTTCCATCTGGAAGTATATAAAGTTCAGAAAAACATGCTCTCGAAGATA
TGAAGTCCAGGACCCTATATTTTTCTCCAGAAGGTCGCTTATACCAAGTTGAATATGCCATGGAAGCTATTGGACA
TGCAGGCACCTGTTTGGGAATTTTAGCAAATGATGGTGTGTTTGCTTGCAGCAGAGAGACGCAACATCCACAAGCT
TCTTGATGAAGTCTTTTTTTCTGAAAAAATTTATAAACTCAATGAGGACATGGCTTGCAGTGTGGCAGGCATAAC
TTCTGATGCTAATGTTCTGACTAATGAAGTCAAGGCTCATTGCTCAAAGGTATTTATTACAGTATCAGGAGCCAAT
ACCTTGTGAGCAGTTGGTTACAGCGCTGTGTGATATCAAACAAGCTTATACACAATTTGGAGGAAAACGTCCCTT
TGGTGTTCATTGCTGTACATTGGCTGGGATAAGCACTATGGCTTTTCTAGCTCTATCAGAGTGACCCTAGTGAAAA
TTACGGGGGATGGAAGGCCACATGCATTGGAATAATAGCGCTGCAGCTGTGTCAATGTTGAAACAAGACTATAA
AGAAGGAGAAATGACCTTGAAGTCAGCACTTGCTTTAGCTATCAAAGTACTAAATAAGACCATGGATGTTAGTAA
ACTCTCTGCTGAAAAAGTGGAAATTGCAACACTAACAAGAGAGAATGGAAAGACAGTAATCAGAGTTCTCAAACA
AAAAGAAGTGGAGCAGTTGATCAAAAAACACGAGGAAGAAGAAGCCAAAGCTGAGCGTGAGAAGAAAGAAAAAGA
ACAGAAAGAAAAGGATAAAATAGAAATCAGAGATTTTATTACTCATTGTTGGGGCACCATTTCAGTGTAAAAGCAGTCC
TACTCTTCCACACTAGGAAGGCTTTACTTTTTTTAACTGGTGCAGTGGGAAAATAGGACATTACATACTGAATTG
GGTCTTGTCAATTTCTGTCCAATTGAATACTTTATTGTAACGATGATGGTTACCCTTCATGGACGTCTTAATCTT
CCACACACATCCCCTTTTTTTTGAATAAAATTTGAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 4262

MSRRYDSRTTIFSPTEGRLYQVEYAMEAIGHAGTCLGILANDGVLLAAERRNIHKLLDEVFFSEKIYKLNEDMACS
VAGITSDANVLTNELRLIAQRYLLQYQEPICEQLVTALCDIKQAYTQFGGKRPFVSLLYIGWDKHYGFQLYQS
DPSGNYGGWKATCIGNNSAAAVSMLKQDYKEGEMTLKSALALAIKVLNKTMDVSKLSAEKVEIATLTRENGKTVI
RVLKQKEVEQLIKKHHEEEEAEREKKEKEQKEKDK

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FIGURE 4263

ATGGTTAACCCCACTGTGTTTTTTGACATCGCCGTCGATGGCGAGCCCTTGGGCCACGTCTCCTTCGAGCTGCTT
GCAGACAAGTTTCCAAAGACAGCAGAAAACTTTCATGCTCTGAGCACIGGAGAGAAAGGATTGGAATTATCAGAG
TTTATGTGTCAGGGTGGTGACTTCACATGCCATAATGGCACTGGTGGCAAGTCCATCTATGGGGAGAAATTTGAT
GATGAGAACTTCATCCTAAAGCATACAGTGGTGGATGGCAAGCATGTGGTCTTTGGCAAGGTGAAAGAAGGCATG
AATATTGTGGAGGCCACGGAGCGCTTTGAGTCCAGGAATGGCAAGACCAGGAAGAAGATCACCATTGCTGACTGT
GGACAACTCTAA

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FIGURE 4264

MVNPTVFFDIAVDGEPLGHVSFELLADKFPKTAENFHALSTGEKGFELSEFMCQGGDFTCHNGTGGKSIYGEKFD
DENFILKHHTVVDGKHVVFGKVKEGMNIVEATERFESRNGKTRKKITIADCGQL

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FIGURE 4265

AGTGCGCGCCGGCCGGGCAACCCTATGCTGGCGTAATCGGGTTCCCTCCGAGCCGCCGTAGGACTGGTTCCGGCGG
GCTGGTGAGGAATGGAGCCGGTAGGCTGCTGCGGCGAGTGCCGCGGCTCCTCCGTAGACCCGCGGAGCACCTTCG
TGTTGAGTAACCTGGCGGAGGTGGTGGAGCGTGTGCTCACCTTCCTGCCCCGCAAGGCGTTGCTGCGGGTGGCCT
GCGTGTGCCGCTTATGGAGGGAGTGTGTGCGCAGAGTATTGCGGACCCATCGGAGCGTAACCTGGATCTCCGCAG
GCCTGGCGGAGGCCGGCCACCTGGAGGGGCATTGCTTGGTTTCGCGTGGTAGCAGAGGAGCTTGAGAATGTTTCGCA
TCTTACCACATACAGTTCTTTACATGGCTGATTAGAAAACCTTCATTAGTCTGGAAGAGTGTCTGGCCATAAGA
GAGCAAGGAAAAGAACTAGTATGGAAACAGCACTTGCCCTTGAGAAAGCTATTCCCCAAACAATGCCAAGTCCTTG
GGATTGTGACCCCAGGAATTGTAGTGACTCCAATGGGATCAGGTAGCAATCGACCTCAGGAAATAGAAATTGGAG
AATCTGGTTTTGCTTTATTATTCCCTCAAATTGAAGGAATAAAAAATACAACCCCTTTCATTTTATTAAGGATCCAA
AGAATTTAACATTAGAAAGACATCAACTCACTGAAGTAGGTCTTTTAGATAACCCCTGAACTTCGTGTGGTCCTTG
TCTTTGGTTATAATTGCTGTAAAGGTGGGAGCCAGTAATTATCTGCAGCAAGTAGTCAGCACTTTCAGTGATATGA
ATATCATCTTGGCTGGAGGCCAGGTGGACAACCTGTCATCACTGACTTCTGAAAAGTATGTCTTGTGTGCTTCTG
ATTTCTGCTGTGAATGAAGGAAATGGTCTCAGGTTTTGTCACTTTGGGGTTAACAATTTAAAAAACGTGTTTAA
AGAATTATTAAGATAATAGTTTCATTCCATTTTGTAGTAGACATTGGCTAAGGGGCTTACTGAACATAATTCTGCT
TACGGTTGAATAATTACATTTTTATATATATTGTCCTTCAAGAACTTCCTTGAGTCACATTCTCCTTAAAATTTG
ACATTGCCCTGTTGATCTTTCCTTTGACAGATGTGGTACTCTGTGTGACCTCAATGTGTACCTCCTTTCTAGTTT
CCTCCTTTAAAGGAAACACATGGTTAGAGTGATCTTTATGGCAAACTTCTCAGAGCTTCTAATATGCCCGGTG
CTGTGGAAATCTGGAAGGAGAATAGCATTACCTGTGACAGTTCCTCAAATCTGTTTGGTCACAAAACCTTTTTTCCA
CAGAAATGTCTTGCAAGTCGTACTGGTTTTTGGAAATTCGTATTAGATCTTTGAAAGGCTTTTTCAAGCTTAAA
AATTGTGGATCTTTTTTGTACTAAGGCTTTTGCTTTCAAAGATAAAAAATATTTGCTCTTC

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FIGURE 4266

MEPVGCCGECRGSSVDPRSTFVLSNLAEVVERVLTFLPAKALLRVACVCRLWRECVRRVLRTHRSVTWISAGLAE
AGHLEGHCLVRVVAEELENVRILPHTVLYMADSETFISLEECRGHKRARKRTSMETALALEKLFPKQCQVLGIVT
PGIVVTPMGSGSNRPQEIEIGESGFALLFPQIEGIKIQPFHFIDPKNLTIERHQLTEVGLLDNPELRVVLVFGY
NCCKVGASNYLQQVVSTFSDMNIIILAGGQVDNLSSLTSEKYVLCASDFVCE

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FIGURE 4267

ATGTTCCGAGCGGGCGGCTCCGGGGCAGCTCCGGCGGGCGGCCTCATTGCTACGATTTCAGAGTACCCTGGTAATA
GCTGAGCATGCAAATGATTCCCTAGCACCCATTACTTTAAATACCATTACTGCAGCCACACGCCTTGGAGGTGAA
GTGTCCTGCTTAGTAGCTGGAACCAAATGTGACAAGGTGGCACAAGATCTCTGTAAAGTAGCAGGCATAGCAAAA
GTTCTGGTGGCTCAGCATGATGTGTACAAAGGCCTACTTCCAGAGGAAGTACACCATTTGATTTTGGCAACTCAG
AAGCAGTTCAATTACACACACATCTGTGCTGGAGCATCTGCCTTCGGAAAGAACCTTTTGCCCAGAGTAGCAGCC
AAACTTGAGGTTGCCCCGATTTCTGACATCATTGCAATCAAGTCACCTGACACATTGTGAGAACTATTTATGCA
GGAAATGCTCTATGTACAGTGAAGTGTGATGAGAAAGTGAAAGTGTTTTCTGTCCGTGGAACATCCTTTGATGCT
GCAGCAACAAGTGGCGGTAGTGCCAGTTTCAGAAAAGGCATCAAGTACTTCACCAGTGGAAATATCAGAGTGGCTT
GACCAGAAATTAACAAAAAGTGATCGACCAGAGCTAACAGGTGCCAAAGTGGTGGTATCTGGTGGTCGAGGCTTG
AAGAGTGGAGAGAACTTTAAGTTGTTATATGACTTGGCAGATCAACTACATGCTGCAGTTGGTGCTTCCCCGTGCT
GCTGTTGATGCTGGCTTTGTTCCCAATGACATGCAAGTTGGACAGACGGGAAAAAATAGTAGCACCAGAACTTTAT
ATTGCTGTTGGAATATCTGGAGCCATCCAACATTTAGCTGGGATGAAAGACAGCAAGACAATTGTGGCAATTAAT
AAAGACCCAGAAGCTCCAATTTTCCAAGTGGCAGATTATGGAATAGTTGCAGATTTATTTAAGGTAGTTTCCTGAA
ATGACTGAGATATTGAAGAAAAAATGAATCAGGATCATGCCTTAAAAAGAAAACTTTTGTTAAAGTATTCCACTG
AAATCACAGATATTTGTGGGTATTATAACAATCATTGGAAGCATGGAGAGCTACATTTTATAATTTGAGGGAAA
ATTTCTAACAGATGCCAGAATGCTTGTTTATGGGATTGCTGTGTTTCCTTTTAATTATTTGTGGTTCCAAACAAT
TATTGTTTGAACTTTTTTAATTCTGTACTAAAATCTATAATAAAGCTTTTCCACAGCTTTAAAACT

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FIGURE 4268

MFRAAAPGQLRRAASLLRFQSTLVIAEHANDSLAPITLNTITAATRLGGEVSCLYAGTKCDKVAQDLCKVAGIAK
VLVAQHDVYKGLLPEELTPLILATQKQFNHYTHICAGASAFGKNLLPRVAAKLEVAPISDIIAIKSPDTFVRTIYA
GNALCTVKCDEKVKVFSVRGTSFDAAATSGGSASSEKASSTSPVEISEWLDQKLTKSDRPELTGAKVVVSGGRGL
KSGENFKLLYDLADQLHAAVGASRAAVDAGFVPNDMQVGQTGKIVAPELYIAVGISGAIQHLAGMKDSKTIVAIN
KDPEAPIFQVADYGIVADLFKVVPEMTEILKKK

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FIGURE 4269

GCAGCCGGCCCCGGGCCCCCGCCAGCCTCCCTCCTCGCGTCCCTCGGTGTCTCCGCGGGCCGGCGCGATGCGGCT
GGGCCCCGAGGACCGCGGCGTTGGGGCTGCTGCTGCTGTGCGCCGCCGCGGCCGGCGCCGGAAGGCCGAGGAGCT
GCACTACCCGCTGGGCGAGCGCGCAGCGACTACGACCGCGAGGCGCTGCTGGGCGTCCAGGAAGATGTGGATGA
ATATGTTAAACTCGGCCACGAAGAGCAGCAAAAAAGACTGCAGGCGATCATAAAGAAAATCGACTTGGACTXCAG
ATGGCTTTCTCACTGAAAGTGAACCTCAGTTTCATGGATTGAGATGTCTTTTAAGCATTATGCTATGCAAGAAGCAA
AACAACAGTTTGTGTAATATGATAAAAAAGTGATGATACTGTGACTTGGGATGAATATAACATTCAGATGTATG
ATCGTGTGATTGACTTTGATGAGAACACTGCTCTGGATGATGCAGAAGAGGAGTCCTTTAGGAAGCTTCACTTAA
AGGACAAGAAGCGATTTGAAAAAGCTAACCCAGGATTGAGGTCCCGGTTTGAGTCTTGAAGAATTTATTGCTTTTG
AGCATCCTGAAGAAGTTGATTATATGACGGAATTTGTCAATTCAAGAAGCTTTAGAAGAACATGACAAAAATGGTG
ATGGATTTGTTAGTTTGGAAGAATTTCTTGGTGATTACAGGTGGGATCCAAGTCAAATGAAGATCCAGAATGGA
TACTTGTGAGAAAGACAGATTTCGTGAATGATTATGACAAAGATAACGATGGCAGGCTTGATCCCCAAGAGCTGT
TACCTTGGGTAGTACCTAATAATCAGGGCATTGCACAAGAGGAGGCGCTTCATCTAATTGATGAAATGGATTGGA
ATGGTGACAAAAAGCTCTCTGAAGAAGAGATTCTGAAAACCCGGACTTGTTTCTCACCAGTGAAGCCACAGATT
ATGGCAGACAGCTCCATGATGACTATTTCTATCATGATGAGCTTTAATCTCTGAGCCTGTCTCAGTAGAGTACTG
GCTCCTTTTATAATTTGTTACCAGCTTTACTTTTGTGATAAAATATTGATGTTGTATTTTACACTCTTAAGTCTT
AACCACAGTCAGAATTATCTTAATGTAGATTATAATTTTGGTCTTTTAGGAAAAAAAAAACAAAAATCTGATATTT
ATTTCAAATGTATTGAAGCAACAAAATATTAATATTGTGCCATATGACAACAAAGTCTTTCCTAAATACTCCAT
CTGTTTAGTACTGTATTGTGGAATATTTGAGTTCTATTTCCATACTTGAAAACATGGAGGATTTTAGAGATGCCT
GAACAATATTATTTAAGTAGTATGTGACCGAGCTATAAATTTTGTGTTTTGTTCTAAGTAGATTTAATTTGGGAA
CTGACAGGACAATGTTTTTAGGTTTAGCATTTTGTGTTAAAAACCTTTAAAGAAACCTTTAGAAGGACTTAGACCT
CACATATTAATGTTGAGAAGTTCTGCTTAATTTTAAAATGGTTTCTATAAAGGGTTTTATTGTATGAAATAGAAC
TTTATATTTTGCATATGTATAGATAGTAATTATTTAATGTATAACTATAGCATTATGGTGAGTGAATTTGA
CATTGTCCAAACCTTTTTTCATTTTTGAGTGATTAAAAATGAAATGTCCTTTGTA

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FIGURE 4270

GAGCCCGTCTTCCGACGTGCAGCCTGGCAGTGCAGTGCAGCTGTCTGGCCTTTTGTCTTGATCCTTGGTTAAGGA
AATGACCAACCAGTACGGTATTCTCTTCAAACAAGAGCAAGCCCATGATGATGCCATTTGGTCAGTTGCTTGGGG
GACGAACAAGAAGGAAAACCTCTGAGACAGTGGTCACAGGCTCCCTAGATGACCTGGTGAAGGTCTGGAAATGGCG
TGATGAGAGGCTGGACCTACAGTGGAGTCTGGAGGGACATCAGCTGGGAGTGGTGTCTGTGGACATCAGCCACAC
CCTGCCCATTTGCTGCATCCAGCTCTCTTGATGCTCATATTCTGTCTTTGGGACTTGGAAAATGGCAAACAGATAAA
GTCCATAGATGCAGGACCTGTGGATGCCTGGACTTTGGCCTTTTCTCCTGATTCCCAGTATCTGGCCACAGGAAC
TCATGTCGGGAAAGTGAACATTTTGGTGTGGAAAGTGGGAAAAAGGAATATTCTTTGGACACGAGAGGAAAATT
CATTCCTTAGTATTGCATATAGTCCTGATGGGAAATACCTAGCCAGTGGAGCCATAGATGGAATCATCAATATTTT
TGATATTGCAACTGGAAAACCTTCTGCATACCCTGGAAGGCCATGCCATGCCCATTCGCTCCTTGACCTTTTCCCC
GGACTCCCAGCTCCTTGTCACTGCTTCAGATGATGGCTACATCAAGATCTATGATGTACAACATGCCAATTTGGC
TGGCACGCTGAGCGGCCATGCCTCCTGGGTGCTGAACGTTGCATTCTGTCTGATGACACTCACTTTGTTTCCAG
TTCGTCTGACAAAAGTGTAAAAGTTTGGGATGTTGGAACGAGGACTTGTGTTCACACCTTCTTTGATCACCAGGA
TCAGGTCTGGGGAGTAAAATACAATGGAATGGTTCAAAAATTGTGTCTGTTGGAGATGACCAGGAAATTCACAT
CTATGATTGTCCAATTTAAACATCAAAGTCTCCAGGCTTATGCTGCAAAGAGAATGTACGGATTGATCATGACAT
TCCTTACCTTCTTAGGCTTGTTTAAAAGAAATATAGCATTATTGTAGCAAAGACTTAAATTTTGTAGATACAAT
ATGAATCTTTTCATGTTTTATTGGAAATGCTGTTTCACTTTAACATAAAGCTTCTTAATGCAAAAAAAAAAAAA
AAAAA

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FIGURE 4271

MTNQYGILFKQEQAHDDAIWSVAWG TNKKENSETVVTGSLDDLKVKWWRDERLDLQWSLEGHQLGVVSVDISHT
LP IAASSSLDAHIRLWDLENGKQIKSIDAGPVDATLAFSPDSQYLATGTHVGKVNIFGVESGKKEYSLDTRGKF
ILSIAYSPDGKYLASGAIDGIINIFDIATGKLLHTLEGHAMP IIRSLTFSPDSQLLVTA SDDGYIKIYDVQHANLA
GTL SGHASWVLNVAFCPDDTHFVSSSSDKSVKVWDVGTRTCVHTFFDHQDQVWGVKYNNGSKIVSVGDDQEIH I
YDCPI

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FIGURE 4272

GTGCAGGGACTTCACAGCCACACGGGCTACGAGGTGCTGCTGCAGCGGCTTCTGGATGGCAGGAAGATGTGCAA
AGACATGGAGGAGCTACTGAGGCAGAGGGCCAGGCGGAGGAGCGGTACGGGAAGGAGCTGGTGCAGATCGCACG
GAAGGCAGGTGGCCAGACGGAGATCAACTCCCTGAGGGCCTCCTTTGACTCCTTGAAGCAGCAAATGGAGAATGT
GGGCAGCTCACACATCCAGCTGGCCCTGACCCTGCGTGAGGAGCTGCGGAGTCTCGAGGAGTTTCGTGAGAGGCA
GAAGGAGCAGAGGAAGAAGTATGAGGCCGTATGGACCGGGTCCAGAAGAGCAAGCTGTGCTCTACAAGAAGGC
CATGGAGTCCAAGAAGACATACGAGCAGAAGTGCCGGGACGCGGACGACGCGGAGCAGGCC TTCGAGCGCATTAG
CGCCAACGGGCCACCAGAAGCAGGTGGAGAAGAGTCAGAACAAAGCCAGGCAGTGCAAGGACTCGGCCACCGAGGC
AGAGCGGGTATACAGGCAGAGCATTGCGCAGCTGGAGAAGGTCCGGGCTGAGTGGGAGCAGGAGCACCGGACCAC
CTGTGAGGCCTTTTCAGCTGCAAGAGTTTGACCGGCTGACCATTCTCCGCAACGCCCTGTGGGTGCACAGCAACCA
GCTCTCCATGCAGTGTGTCAAGGATGATGAGCTCTACGAGGAAGTGCGGCTGACGCTGGAAGGCTGCAGCATAGA
CGCCGACATCGACAGTTTCATCCAGGCCAAGAGCACGGGCACAGAGCCCCCGCTCCGGTGGCCCTACCAGAACTA
TTACGATCGGGAGGTCACCCCGCTGACCAGCAGCCCTGGCATAACGCCGTCCTGCGGCATGATAAAGAGGTTCTC
TGGACTGCTGCACGGAAGTCCCAAGACCACTTCGTTGGCAGCTTCTGCTGCGTCCACAGAGACCTTGACCCCCAC
CCCCGAGCGGAATGAGGGTGTCTACACAGCCATCGCAGTGCAGGAGATACAGGGAAACCCGGCCTCACCAGCCCA
GGAGTACCGGGCGCTCTACGATTATACAGCGCAGAACCCAGATGAGCTGGACCTGTCCGCGGGAGACATCCTGGA
GGTGATCCTGGAAGGGGAGGATGGCTGGTGGACTGTGGAGAGGAACGGGCAGCGTGGCTTCGTCCCTGGTTCCTA
CCTGGAGAAGCTTTGAGGAAGGGCCAGGAGCCCCCTTCGGACCTGCCCTGCCAGTGGAGCCAGCAGTGCCCCCAGC
ACTGTCCCCACCTTGCTAGGGCCCAAGCAAGCGTCCCCCAGCCCCGAGAGGGAGCCTGTCGTCTCCCAGGGAA
TAAAGGAGTGCGTTCTGTT

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FIGURE 4273

GTTGCCAGGGAGCGGCGCGGGAGCCCTGAGGGGACTGCGGCGGCTGCGCGGAGGAGCGAGGCGCTTGCTGGGGTC
GGGGCTGCGCGACGGCGCAGGGGGCTGCGGGGAGCGCCGCGCAGGCCGTGCAGTTCCTAGCGAGGAGGCGCCGCCG
CCATTGCCGCTCTCTCGGTGAGCGCAGCCCCGCTCTCCGGGCGGGCCTTCGCGGGCCACCGGCGCCATGGGCCA
GTGCGGCATCACCTCCTCCAAGACCGTGCTGGTCTTTCTCAACCTCATCTTCTGGGGGGCAGCTGGCATTATG
CTATGTGGGAGCCTATGTCTTCATCACTTATGATGACTATGACCATTCTTTGAAGATGTGTACACGCTCATCCC
TGCTGTAGTGATCATAGCTGTAGGAGCCCTGCTTTTCATCATTGGGCTAATTGGCTGCTGTGCCACAATCCGGGA
AAGTCGCTGTGGACTTGCCACGTTTGTCAATCATCTGCTCTTGTTTTTGTACAGAAGTTGTTGTAGTGGTTTT
GGGATATGTTTACAGAGCAAAGGTGGAAAATGAGGTTGATCGCAGCATTTCAGAAAGTGATAAGACCTACAATGG
AACCAACCCTGATGCTGCTAGCCGGGCTATTGATTATGTACAGAGACAGCTGCATTGTTGTGGAATTCACAACTA
CTCAGACTGGGAAAATACAGATTGGTTCAAAGAAACCAAAAACCAGAGTGTCCCTCTTAGCTGCTGCAGAGAGAC
TGCCAGCAATTGTAATGGCAGCCTGGCCCCACCTTCCGACCTCTATGCTGAGGGGTGTGAGGCTCTAGTTGTGAA
GAAGCTACAAGAAATCATGATGCATGTGATCTGGGCCGCACTGGCATTTCAGCTATTTCAGCTGCTGGGCATGCT
GTGTGCTTGCAATCGTGTGTGTCAGAAGGAGTAGAGATCCTGCTTACGAGCTCCTCATCACTGGCGGAACCTATGC
ATAGTTGACAACCTCAAGCCTGAGCTTTTTTGGTCTTGTTCTGATTTGGAAGGTGAATTGAGCAGGTCTGCTGCTGT
TGGCCTCTGGAGTTTCATTTAGTTAAAGCACATGTACACTGGTGTGGACAGAGCAGCTTGGCTTTTCATGTGCC
ACCTACTTACCTACTACCTGCGACTTTCTTTTTCTTGTTCTAGCTGACTCTTCATGCCCCTAAGATTTTAAGTA
CGATGGTGAACGTTCTAATTTTCAAGAACCAATTGCGAGTCATGTAGTGTGGTAGAATTAAAGGAGGACACGAGCCT
GCTTCTGTTACCTCCAAGTGGTAACAGGACTGATGCCGAAATGTCACCAGGTCCTTTCAGTCTTCACAGTGGAGA
ACTCTTGGCCAAAGGTTTTTGGGGGGAGGAGGAGGAAACCAGCTTTCTGGTTAAGGTTAACACCAGATGGTGCCC
CTCATTGGTGTCTTTTTAAAAAATATTTACTGTAGTCCAATAAGATAGCAGCTGTACAAAATGACTAAAATAGAT
TGTAGGATCATATGGCGTATATCTTGTTTCATCTTCAAAATCAGAGACTGAGCTTTGAACTAGTGGTTTTTAAT
CAAAGTTGGCTTTATAGGAGGAGTATAATGTATGCACTACTGTTTTAAAGAATTAGTGTGAGTGTGTTTTTGTA
TGAATGAGCCCATTTCATGGTAAGTCTTAAGCTTGTTGGAATAATGTACCCATGTAGACTAGCAAAATAGTATGT
AGATGTGATCTCAGTTGTAAATAGAAAAATCTAATTCAATAAACTCTGTATCAGCCCCAACATATTATTTTCA
TTATTTGGGGGATATTTAGTTCCAAAAA

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FIGURE 4274

MGQCGITSSKTVLVFLNLIFWGAAGILCYVGAYVFITYDDYDHFFEDVYTLIPAVVIIAVGALLFIIGLIGCCAT
IRESRCGLATFVIILLLVFVTEVVVVVLGYVYRAKVENEVDRSIQKVYKTYNGTNPDAASRAIDYVQRQLHCCGI
HNYSDWENTDWFKETKNQSVPLSCCRETASNCNGSLAHPSDLYAEGCEALVVKKLQEIMMHVIWAALAFAAIQLL
GMLCACIVLCRRSRDPAYELLITGGTYA

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FIGURE 4275

CTTTCTTTGCTGCGTCTACTGCGAGAATGAAAGACTATTCTCAGCAATCAGACTGTCGACATTCCAGAAAATGTCG
ACATTACTCTGAAGGGACGCACAGTTATCGTGAAGGGCCCCAGAGGAACCCTGCGGAGGGACTTCAATCACATCA
ATGTAGAACTCAGCCTTCTTGGAAAGAAAAAAGAGGCTCCGGGTTGACAAATGGTGGGGTAACAGAAAGGAAC
TGGCTACCGTTCGGACTATTTGTAGTCATGTACAGAACATGATCAAGGGTGTACACTGGGCTTCCGTTACAAGA
TGAGGTCTGTGTATGCTCACTTCCCCATCAACGTTGTTATCCAGGAGAATGGGTCTCTTGTTGAAATCCGAAATT
TCTTGGGTGAAAAATACATCCGCAGGGTTCGGATGAGACCAGGTGTTGCTTGTTTCAGTATCTCAAGCCCAGAAAG
ATGAATTAATCCTTGAAGGAAATGACATTGAGCTTGTTTCAAATTCAGCGGCTTTGATTTCAGCAAGCCACAACAG
TTAAAAACAAGGATATCAGGAAATTTTGGATGGTATCTATGTCTCTGAAAAAGGAAGTTCAGCAGGCTGATG
AATAAGATCTAAGAGTTACCTGGCTACAGAAAGAAGATGCCAGATGACACTTAAGACCTACTTGTGATATTTAAA
TGATGCAATAAAAGACCTATTGATTGGA

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FIGURE 4276

MKTILSNQTVDIPENVDTILKGRTVIVKGPRGTLRRDFNHINVELSLGKKKKRLRVDKWWGNRKELATVRTICS
HVQNMIKGVTLGFRYKMRSVYAHFPINVVIQENGSLVEIRNFLGEKYIRRVRMRPGVACSVSQAQKDELILEGND
IELVSNSAALIQQATTVKNKDIRKFLDGIYVSEKGTVQQADE

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FIGURE 4278

GCGCAAGAGCCAAGCCGCCAGCGCTGCGATGTGGGCCACGCTGCCGCTGCTCTGCGCCGGGGCCTGGCTCCTGGG
AGTCCCCGTCTGCGGTGCCGCCGAACCTGTGCGTGAACCTCCTTAGAGAAGTTTCACCTTCAAGTCATGGATGTCTAA
GCACCGTAAGACCTACGTACGGAGGAGTACCACCACAGGCTGCAGACGTTTGCCAGCAACTGGAGGAAGATAAA
CGCCCACAACAATGGGAACCACACATTTAAAATGGCACTGAACCAATTTTCAGACATGAGCTTTGCTGAAATAAA
ACACAAGTATCTCTGGTCAGAGCCTCAGAATTGCTCAGCCACCAAAAGTAACTACCTTCGAGGTACTGGTCCCTA
CCCACCTTCCGTGGACTGGCGGAAAAAAGGAAATTTTGTCTCACCTGTGAAAAATCAGGGTGCCTGCGGCAGTTG
CTGGACTTTCTCCACCACTGGGGCCCTGGAGTCTGCGATCGCCATCGCAACCGGAAAGATGCTGTCCTTGGCGGA
ACAGCAGCTGGTGGACTGCGCCAGGACTTCAATAATCACGGCTGCCAAGGGGGTCTCCCCAGCCAGGCTTTTGA
GTATATCCTGTACAACAAGGGGATCATGGGTGAAGACACCTACCCCTACCAGGGCAAGGATGGTTATTGCAAGTT
CCAACCTGGAAAGGCCATCGGCTTTGTCAAGGATGTAGCCAACATCACAATCTATGACGAGGAAGCGATGGTGG
GGCTGTGGCCCTCTACAACCCTGTGAGCTTTGCCTTTGAGGTGACTCAGGACTTCATGATGTATAGAACCGGCAT
CTACTCCAGTACTTCCTGCCATAAACTCCAGATAAAAGTAAACCATGCAGTACTGGCTGTTGGGTATGGAGAAAA
AAATGGGATCCCTTACTGGATCGTAAAAACTCTTGGGGTCCCCAGTGGGGAATGAACGGGTACTTCCTCATCGA
GCGCGGAAAGAACATGTGTGGCTGGCTGCCTGCGCCTCCTACCCCATCCCTCTGGTGTGAGCCGTGGCAGCCGC
AGCGCAGACTGGCGGAGAAGGAGAGGAACGGGCAGCCTGGGCCTGGGTGGAAATCCTGCCCTGGAGGAAGTTGTG
GGGAGATCCACTGGGACCCCAACATTCTGCCCTCACCTCTGTGCCAGCCTGGAAACCTACAGACAAGGAGGAG
TTCCACCATGAGCTCACCCGTGTCTATGACGCAAAGATCACCAGCCATGTGCCTTAGTGTCTTCTTAACAGACT
CAAACCACATGGACCACGAATATTCTTTCTGTCCAGAAGGGCTACTTTCCACATATAGAGCTCCAGGGACTGTCT
TTTCTGTATTGCTGTTCAATAAACATTGAGTGAGCACCTCC

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FIGURE 4279

GGCAAATCCGGCCCCAGGATGTAGAGCTGGCAGTGCCTGACGGCGCGTCTGACGCGGAGTTGGGTGGGGTAGAGAG
TAGGGGGCGGTAGTCGGGGGTGGTGGGAGAAGGAGGAGGCGGCGAATCACTTATAAATCGCGCCGAAGCAGGACC
CGAAGCCTAAATTCAGGAGGGTGAGCGAGTGCTGTGCTTTTCATGGGCCTCTTCTTTATGAAGCAAAGTGTGTAA
AGGTTGCCATAAAGGACAAACAAGTGAAATACTTCATACATTACAGTGGTTGGAATAAAAATTGGGATGAATGGG
TTCCGGAGAGCAGAGTACTCAAATACGTGGACACCAATTTGCAGAAACAGCGAGAACTTCAAAAAGCCAATCAGG
AGCAGTATGCAGAGGGGAAGATGAGAGGGGCTGCCCCAGGAAAGAAGACATCTGGTCTGCAACAGAAAAATGTTG
AAGTGAAAACGAAAAAGAACAACAGAAAAACCTGGAAATGGAGATGGTGGCAGTACCAGTGAGACCCCTCAGC
CTCCTCGGAAGAAAAGGGCCCGGGTAGATCCTACTGTTGAAAATGAGGAAACATTTCATGAACAGAGTTGAAGTTA
AAGTAAAGATTCTCTGAAGAGCTAAAACCGTGGCTTGTGTGACTGGGACTTAATTACCAGGCAAAAACAGCTCT
TTTATCTTCTGCCAAGAAGAAATGTGGATTCCATTCTTGAGGATTATGCAAATTACAAGAAATCTCGTGGAACA
CAGATAATAAGGAGTATGCGGTTAATGAAGTTGTGGCAGGGATAAAAGAATACTTCAACGTAATGTTGGGTACCC
AGCTACTCTATAAATTTGAGAGACCACAGTATGCTGAAATCTTGCAGATCATCCCGATGCACCCATGTCCCAGG
TGTATGGAGCGCCACATCTCCTGAGATTATTTGTACGAATTGGAGCAATGTTGGCTTATACACCTCTGGATGAGA
AGAGCCTTGCTTTTATTACTCAATTATCTTCACGATTTCCTAAAGTACCTGGCAAAGAATTCTGCAACTTTGTTCA
GTGCCAGCGATTATGAAGTGGCTCCTCCTGAGTACCATCGGAAAGCTGTGTCAGAGGCACTCTCACTCACTTATG
TTTGGATCTCCGTAAACACATTTTTGTTCTTAGTCTATCTCTGTACAAACGATGTGCTTTGAAGATGTTAGTGT
ATAACAATTGATGTTTGTGTTTCTGTTTGAATTTAAACAGAGAAAAAATAAAAGGGGGTAATAGCTCCTTTTTTCT
TCTTCTTTTTTTTTTTTCAATTTCAAATTTGCTGCCAGTGTGTTTCAATGATGGACAACAGAGGGATATGCTGTAGA
GTGTTTTATTGCCTAGTTGACAAAGCTGCTTTTGAATGCTGGTGGTTCTATTCTTTGACACTACGCACCTTTTAT
AATACATGTTAATGCTATATGACAAATGCTCTGATTCTTAGTGCCAAAGGTTCAATTCAGTGTATATAACTGAA
CACACTCATCCATTTGTGCTTTTGTGTTTTTTTTTATGGTGCTTAAAGTAAAGAGCCCATCCTTTGCAAGTCATCCA
TGTTGTTACTTAGGCATTTTATCTTGGCTCAAATTTGTTGAAGAATGGTGGCTTGTTCATGGTTTTTGTATTGT
GTCTAATGCACGTTTTTAACATGATAGACGAATGCATTGTGTAGCTAGTTTTCTGGAAAAGTCAATCTTTTAGGA
ATTGTTTTTCAGATCTTCAATAAATTTTTCTTTAAATTC

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FIGURE 4280

MAPKQDPKPKFQEGERVLCFHGPLL YEAKCVKVAIKDKQVKYFIHYSGWNKNWDEWVPESRVLKYVDTNLQKQRE
LQKANQEQYAEGKMRGAAPGKKTSGLQQKNVEVKTKKNKQKTPGNGDGGSTSETPQPPRKKRARVDPTVENEETF
MNRVEVKVKIPEELKPWLVDWDLITRQQLFYLPKKNVDSILEDYANYKKS RGNTDNKEYAVNEVVAGIKEYF
NVMLGTQLLYKFERPQYAEILADHPDAPMSQVYGAPHLRLRFVRIGAMLAYTPLDEKSLALLLN YLHDFLKYLA
KNSATLFSASDYEVAPEYHRKAV

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FIGURE 4281

GAACCGCCATCTTCCAGTAATTCGCCAAAATGACGAACACAAAGGGAAAGAGGAGAGGCACCCAATATATGTTCT
CTAGGCCTTTTAGAAAACATGGAGTTGTTGCTTTGGCCACGTATATGCAAATCTATAAGAAAGGTGATATTGTAG
ACATCAAGGGAATGGGTACTGTTCAAAAAGGAATGCCCCACAAGTGTTACCATGGCAAACTGGAAGAGTCTATA
ATGTCCCCCAGCATGCTGTTGGCATTGTTGTAAACACACAAGTTAAGGGCAAGATTCTTGCCAAGAGAATTAATG
TGCGTATTGAGCACATTAAGCACTCTAAAAGCTGAGATAGTTTCCTGAAACACATGAAGGAAAATGATCAGAAAA
AGAAGGAAGCCAAATAGAAAGGTACCTGGGTTCAACAGAAGCACCAGCCTGCTCCACCCAGAGAAGCACACTTTG
TGAGAACCAATGCGAAGGAGCCTGAGCTGCTGGAACCTATTCCCTATGAATTCATGGCATAACAGGTGTTAATAA
ATAAATAAAAGACCTCTGGGCTGT

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FIGURE 4282

CTTTCTTTGCTGCGTCTACTGCGAGAATGAAGACTATTCTCAGCAATCAGACTGTGACATTCCAGAAAATGTCTG
ACATTACTCTGAAGGGACGCACAGTTATCGTGAAGGGCCCCAGAGGAACCCTGCGGAGGGACTTCAATCACATCA
ATGTAGAACTCAGCCTTCTTGGAAGAAAAAGAGGCTCCGGGTTGACAAATGGTGGGGTAACAGAAAGGAAC
TGGCTACCGTTCGGACTATTTGTAGTCATGTACAGAACATGATCAAGGGTGTTACACTGGGCTTCCGTTACAAGA
TGAGGTCTGTGTATGCTCACTTCCCCATCAACGTTGTTATCCAGGAGAATGGGTCTCTTGTTGAAATCCGAAATT
TCTTGGGTGAAAAATACATCCGCAGGGTTCGGATGAGACCAGGTGTTGCTTGTTTCAGTATCTCAAGCCCAGAAAG
ATGAATTAATCCTTGAAGGAAATGACATTGAGCTTGTTTCAAATTCAGCGGCTTTGATTTCAGCAAGCCACAACAG
TTAAAAACAAGGATATCAGGAAATTTTGGATGGTATCTATGTCTCTGAAAAAGAAGATGCCAGATGACACT

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FIGURE 4283

CCTCTTTTACCAAGGACCCGCCAACAATGGGCCGCGTTCGCACCAAAACCGTGAAGAAGGCGGCCCGGGTCATCAT
AGAAAAGTACTACACGCGCCTGGGCAACGACTTCCACACGAACAAGCGCGTGTGCGAGGAGATCGCCATTATCCC
CAGCAAAAAGCTCCGCAACAAGATAGCAGGTTATGTCACGCATCTGATGAAGCGAATTCAGAGAGGCCCAGTAAG
AGGTATCTCCATCAAGCTGCAGGAGGAGGAGAGAGAAAGGAGAGACAATTATGTTCTGAGGTCTCAGCCTTGGA
TCAGGAGATTATTGAAGTAGATCCTGACACTAAGGAAATGCTGAAGCTTTTGGACTTCGGCAGTCTGTCCAACCT
TCAGGTCACTCAGCCTACAGTTGGGATGAATTTCAAACGCCTCGGGGACCTGTTTGAATTTTTTCTGTAGTGCT
GTATTATTTTCAATAAATCTGGGACAACAGCAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 4284

MGRVRTKTVKKAARVIEKYYTRLGNDFTNKRVCCEIAIIPSKKLRNKIAGYVTHLMKRIQRGPVVRGISIKLQE
EERERRDNYVPEVSALDQEIEVDPDTKEMLKLLDFGSLSNLQVTQPTVGMNFKTPRGPV.

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FIGURE 4285

CAGTGGCAGCATGGAACCTGCATTTTCATAGAGGAGATCTTCTCTTTCTAACAAATCGAGTTGAAGATCCCATACG
AGTGGGAGAAATTGTTGTTTTTAGGATAGAAGGAAGAGAGATTCCATAGTTCACCGAGTCTTGAAGATTCATGA
AAAGCAAAATGGGCATATCAAGTTTTTGACCAAAGGAGATAATAATGCGGTTGATGACCGAGGCCTCTATAAACA
AGGACAACATTGGCTAGAGAAAAAGATGTTGTGGGGAGAGCCAGGGGATTTGTTCCCTATATTGGAATTGTGAC
GATCCTCATGAATGACTATCCTAAATTTAAGTATGCAGTTCTCTTTTTGCTGGGTTTATTCGTGCTGGTTCATCG
TGAGTAAGAAGCCTGCCTTGCTGTTCTGGGAAGATGCCATAGTTTTCGTTACTGGATGTTTGGAGTAGATACTG
GTCTGTGATTGGTGAATGGAGAACACACGTGTTGGTGCTTCTGGGTAGCACTGGTTTGCATTAGTTTATGTTTC
CATGCCAGAGTTTGTGTGGCGGGCGCATGTGCACCACAGAGTGCACCTCGAGGGGACTTTCAGTCACAGGATTTC
ATAATTGTCATTGTCACACTTTCAAATTTTTGTACATCAGTGAATTTTTTATATTAAAAGGTTGAGCCAAAGCC
CCCAGTGTGTTGTATTTTGAAGCCAAGCTTCACCTCTAAAGTGCCTACAGAGACTTGTAATGAAAATGCAGCTCT
GCACGAGTTTGAAACCGTCATACCTCCTTCTATTAGGAATGGCATATACTGAGGTGGTCGTAAGTCTTAAGTCTCT
AAAATTTTAAATAAAAAGACTTTGCACATTG

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FIGURE 4286

AATCCTTGCGCTTGTAATCGTACGGGGCTGGGACATGGGAGCTGGGCCTGGAGCTTGCCTGGCGGGCGGATGGG
TGTTGGGTGGAGGCACGTTGGGGATCCTGGTGCAGAGTGGGCCAGCTGTGGCCTCGGGGCTCGCCACCGTGGAGGA
CTCCGCTGGGCCTAGGCCCCATCTCTAGGAAATGGCTCCTTCCTGCGTGCGCGCGTTGTGAGATTACTAGTAA
GAGCCGCGCTTGTTGAAGACGCAGTGCCAGTTAGTTTGCGCCAGCCTCTGAGTTCAGCTCAGAACACAGATGATC
TCATTGATTCCCTCACGTCAACCTTGGGAAATCTGGGTACCCTGGGACGTCCACACATGAGGACCGAGGCTCAGGG
ACATCAAGGGACTGGCCTGGTCCCAGAAACAGGGAGTAAATGGGAAGTAAACTCAGTCCCACGTCTGCCTGACT
CCAGAGTTTGGGCCACTGAACCATGCGGCTGCCATCTTGGAGTTCTTTGAGCTGTGAAGTGCTGTGCATCGTGTG
ATTCTGTGTCCCTTTTGTGCAGGTACCAGGATTTCTATGCATTTCGACCTGTCAGGAGCCACTCGAGTCCTTGAAT
GGATTGATGACAAAGGAGTCTTTGTTGCTGGCTATGAAAGCCTGAAAAAGAAATGAAATTCTTCATCTGAAATTAC
CTCTCAGACTTTCTGTAAAGGAAAACAAGGGCTTATTCCCAGAAAGAGATTTCAAAGTGCGCCATGGAGGATTTT
CAGACAGGTCTATCTTTGATCTAAAGCATGTGCCACATACCAGATTGCTGGTTACCAGTGGCCTTCCAGGTTGTT
ATCTGCAGGTGTGGCAGGTTGCAGAGGACAGTGGTGAGTGAATTTGACTTGATGGGGTTTGGGGTTCTAGGAAAAG
TGTGACTCATACACCCTGTCCCCTAATCTGAGCCAGTTAAGAAGGAGACTCAGGCTGGGGACAGTCTCATGCCT
GTAATTGTAGCACTTTGGGAGGCTGAGCTGGGTGGATCACTTGAATTCAGGAGTTGAAGACCACCTTGTACAACA
TGGTGAAACCTGTCTCTATTAATAAATACAAAAAATTAGCCGGGCATGGTGGTAGGCACCTGTAATCCCTGCTACT
GGGGAGACTGAGGCAGGAGAATTGCTTGAACCTGGGAGGCGGAGGTTACAGTGAGCCGAGATCATGCCACTGCAC
TCCAGCCTGGGCAACAAGAGCAAACTCCGTCTCCAAAAAAGTAGTAGTAGTACTCAGAGCCAGGTGGGAAT
TAATCTACTTTAATGC

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FIGURE 4287

CCGGAAGAGACACGCGGGGCTTCAGGCTGCTGCCCCATTGGAAGATTACTCCCCAGGCTTCCCTTGCCCCAAGCA
GTGAGCTGACTGGAATGGTACCCCGGGAGGCCCTGAGTCTGCTCAGTGCCCTGTGCCCTTCCCTCACCATCCCAA
ATGCCAAGGATGTGCTTCGGAAGAGGCACAAGAGAAGGAGCCGACAGCACCAGCGGTTATGGCCCGGAAGGCCT
TGCTGCAGGAGCAGGGGCTGCTGAGCATGCCTCCAGAACCAGGGTCTCCCCACTGCCACCCCTTTCGGGGCAG
CGACAGCAACTGAAGCTGCCAGCAGTGGGAAGCAGTGTCTGAGGGCTGGATCTGGCAGTGCCCCATGCAGCAGAA
GGCCTGCTCCCGGGAAGCCTCAGGGCCCTTGCCAGCAAGTGTGTGGCTATCGACTGTGAGATGGTGGGCACGG
GACCCCGAGGGCGGGTAAGCGAGCTGGCCCGCTGTTCCATTGTGAGCTACCATGGCAATGTCTCTATGACAAGT
ACATCAGGCCTGAGATGCCATCGCTGACTACCGTACCCGCTGGAGTGGCATCACTCGGCAGCACATGCGCAAGG
CTGTCCCTTCCAGGTGGCCAGAAAGAGATCCTTAAGCTCCTGAAGGGCAAGGTGGTGGTGGGGCACGCGCTGC
ACAACGACTTCCAGCGCTCAAGTATGTCCACCCTCGGAGCCAGACCCGGGATACGACCTATGTCCCAAACCTCC
TCAGCGAGCCCGGCCTCCACACCCGGGCCCGGGTCTCTCTAAAGGACCTGGCCCTGCAGCTGCTGCACAAGAAGA
TCCAGGTGGGCCAGCACGGGCACCTCATCAGTAGAAGATGCCACGACAGCCATGGAGCTCTACCGGCTGGTGGAGG
TGCACTGGGAACAGCAGGAGGCCCGCAGCCTCTGGACCTGCCCGGAGGACAGAGAACCTGACAGCAGCACAGACA
TGGAACAGTACATGGAGGACCATCCACCCAGTACTGGGCTCTTAAGCAAAAGTCTGAGAAACAAGACAGTGGTTT
GAATTCTGGGGCCTTTGTGTAGGATTGTGCCTGACCTTTATTTATTTATTAACAGCAGGGCCACTCGTCTAGGGC
AGTGGAGTCTGCGTGTCTCTGGGGCTGGGGCAGGGCATTGGCAGTTACGCAGTGGCCCTGAACCTGGTCTGGTG
CCCCGAACCTGGTCTGATGCCCCCTCAGCTCTTTGACAATCACTGTGGCTGTTGGGTTTTCTCCTATTTCTAAA
AATGTTCTCTTTCTTTCTTAAGTGACAGTTTTGAAGTATTGGATAACCAAGAGCTCAGGTACACAGACCTTGGAG
CCCCATCTTTGCTTGCAGCTTAGCTTTGAGATACTAAGCAAGCGAGGGACTTCACTCTTGAGGCTGTTTTTTCCT
CATCTGTAAAGTGGGGATAGTGGTACGGCCTACCTCATAGGGTTGTAATGAGCACTAAATGTGAAGTGCTTGGCA
CAGTGCCCTGGCACATGGTGAGCCACAGCTACTGTGAGTTTCTGTTTATCCCCCTTTTTTTTTTTTAAAGCCATTG
TTTATTCTTTGAGAATTTGTTGTAACCTCTTCAGGATAACACCTGAGTCCACAGGCTGAGCAGCTGTGGCCAGCA
CAGAACTGCTCCGGCTTGGCTGTTCCAGCAGGTGGGGCCTGGCCTCGGTGAGGGCACAGCAGCAAGGTTACCGG
ATATCCGTGTGTCTTGTCTGTGGCCACCAGGCACAGGTTTGGCTTCCGGTCAGTGTCCCGACACTGTGCGGGAGG
TGACAACAGAGCAAAGCAGCGCAGGGGTCAGGGAGGTACAGACACTGCTGAAATCACACTACCCACCCCTCAGCT
GAAGCCCCACGTTCCACAACTTGGGGTCATAGATTGTCCAGTCACTGGCTCCCTCCCTGTGAGCACAGCACAGA
GGAAGGGGCTAACTGAATCTTTTACCCTTCTGGCCTGGCTCCAGAACCTTTGTTCTAGATTCTTTAAAAGTCGGT
AGCTGATGTCAAACCTCAATTGAGCAGTAGCTTTGATCCCTTGGTCTGGGGGTCGAAGGAAGATGGTGCTGTTATC
AGCGGGGAAATGTACTATTTAAGATCAGCTTTGTTGTAAACCATTGTTCTAGAATAAACTCAATTGGAACG
TG

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FIGURE 4288

MVPREAPESAQCCLCPSLTIPNAKDVLKRHRKRRSRQHQRFFMARKALLQEQGLLSMPPEPGSSPLPTPFGAATATE
 AASSGKQCLRAGSGSAPCSRPAAPGKASGPLPSKCAIDCEMVGTGPRGRVSELARCSIVSYHGNVLYDKYIRPE
 MPIADYRTRWSGITRQHMRKAVPFQVAQKEILKLLKGKVVVGHALHNDQALKYVHPRSQTRDTTYVPNFLSEPG
 LHTRARVSLKDLALQLLHKKIQVGQHGHSVEDATTAMELYRLVEVQWEQQEARS LWTCPEDREPDSSSTDMEQYM
 EDQYWPDDL AHGSRGGAREAQDRRN

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FIGURE 4289

CCAAATGCCAAGGATGTGCTTCGGAAGAGGCACAAGAGAAGGAGCCGACAGCACCAGCGGTTTCATGGCCCGGAAG
GCCTTGCTGCAGGAGCAGGGGCTGCTGAGCATGCCTCCAGAACCAGGGTCCTCCCCACTGCCACCCCTTTCGGG
GCAGCGACAGCAACTGAAGCTGCCAGCAGTGGGAAGCAGTGTCTGAGGGCTGGATCTGGCAGTGCCCCATGCAGC
AGAAGGCCTGCTCCCGGGAAAGCCTCAGGGCCCTTGCCCAGCAAGTGTGTGGCTATCGACTGTGAGATGGTGGGC
ACGGGACCCCGAGGGCGGGTAAGCGAGCTGGCCCGCTGTTCCATTGTGAGCTACCATGGCAATGTCCTCTATGAC
AAGTACATCAGGCCTGAGATGCCCATCGCTGACTACCTCTTCCTCCACTCATTTGGGTTT CAGAATAAACATGTCC
TGAAGTTAAAGAGGAGTTAAGTCCTAAAGGAGGCATTTCTTCCCCACCTCCCTGACCTGGAACCTCTGGCTACAGC
CATTGTAGGAACTCCGTGCCTGGCCTGTCAGCTCCCTGCTAGGCTACAGTGGAATAGCAGAGCCCACAGGCTTCT
CGTGGGGAGTTGGCTCCTTAACATTTCTTGGCAACAGAAAGCCCCAGGCACAGCTCAGGGAGGAGGGAAGGCAGG
TAAGCTTTGGACGAGAACTGGCATATTTATTTTGACCCAAATCAGGGATTTCCTCCAGTCCACCCAGTACTGGGCT
CTTAAGCAAAAGTCTGAGAAAC

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FIGURE 4290

AGTCCCGGAAGTCTAGAACGAACCATTCGCATATGGAGGGGGTGACCCACCATCTCAGAACATTAAAAAAGGGA
AAGAATCCCCTGGTGAAGTACAGTGAAAGTCTTATTGAGCATTTAAATGGAAATAAAAAATATTAGTGGACCTAA
TGAAGAGTAGATGACTTTCCCTTCTGTCCCCTCCCCGACAGGCACTCATGGTACCGGCGCCGGCGCAGCTGTGAC
TGTCGCTGCAGACGGAAAGTGAAGTGGGGTCAATTCAAGTCAATGCAGGCTGTGAGAAACGCGGGGTCGCGGTTCT
GCGGTCCTGGACTTGGCCCCAGACAGCCGGCAGGGTCTGTGGCCAGAACGCGGCGCCGGGACCATCTGCACAGGCGC
TCGACAGCTCCAAGACGCTGCGGCCAAGCAGAAAGTTGAACAGAACGCGGCTCCCAGCCACACCAAGTTCAGCAT
TTACCTTCCCATTCCAGGAGAGGAGAGCTCTCTGAGGTGGGCAGGAAAGAAATTTGAGGAGATCCCAATTGCACA
CATTAAAGCATCCCACAACAACACACAGATCCAGGTAGTCTCTGCTAGTAATGAGCCCCCTTGCCCTTTGCTTCCTG
TGGCACAGAGGGATTTTGGGAATGCCAAGAAGGGCACAGGCATCGCAGCACAGACAGCAGGCATAGCCGCAGCGGC
GAGAGCTAAACAAAAGGGCGTGATCCACATCCGAGTTGTGGTGAAAGGCCCTGGGGCCAGGACGCTTGTCTGCCAT
GCACGGACTGATCATGGGCGGCCTGGAAGTGATCTCAATCACAGACAACACCCCAATCCCACACAACGGCTGCCG
CCCCAGGAAGGCTCGGAAGCTGTGATGGGAAGGAGGCCTGCACCTGGACCTGACCTCAAGCCTCAGCTCCAGTGG
GACCTTGTAAGTATGCTCCCTGTGAGAGCTCTCCAGAATATGCTTGTGGAGATCCTTCAGGCAGTAAGGGAGAGT
TTTGCTCCTTACACAGTGGCCTTTGCTTGACCTCCAGCTGGAGATGGGTGTGCCCCAGAAGTAAGCTTTGCAT
CTCTTACAAGAGGGGAGCTACAGGGGCAGCCGTGGCCTAGGCCCAAACCTCTGCTCTGAGAAAATAAATATCTGTA
CCACCTGTCAA

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FIGURE 4291

MQAVRNAGSRFLRSWTWPQTAGRVVARTPAGTICTGARQLQDAAAKQKVEQNAAPSHTKFSIYPPIPGEESSLRW
AGKKFEEIPIAHIKASHNNTQIQVVSASNEPLAFASCGTEGFRNAKKG TGIAAQTAGIAAAARAKQKGVHIRVV
VKGLGPGRLSAMHGLIMGGLEVISITDNTPIPHNGCRPRKARKL

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FIGURE 4292

TAATTTTTGCCAGTCTGCCTGTTGTGGGGCTCCTCCCTTTGGGGATATAAGCCCGGCTGGGGCTGCTCCGTT
CTCTGCCTGGCCTGAGGCTCCTGAGCCGCTCCCCACCATCACCATGGCCAAGGGCTTCTATATTTCCAAGTCC
CTGGGCATCCTGGGGATCCTCCTGGGCGTGGCAGCCGTGTGCACAATCATCGCACTGTCACTGGTGTACTCCCAG
GAGAAGAACAAGAAGCCAAACAGCTCCCCCGTGGCCTCCACCACCCCGTCCGCTCAGCCACCACCAACCCCGCC
TCGGCCACCACCTTGGACCAAAGTAAAGCGTGAATCGTTACCGCCTCCCCAACACGCTGAAACCCGATTCTTAC
CGGGTGACGCTGAGACCGTACCTACCCCCAATGACAGGGGCGCTGTACGTTTTTAAGGGCTCCAGCACCCTCCGT
TTCACCTGCAAGGAGGCCACTGACGTATCATCATCCACAGCAAGAAGCTCAACTACACCCTCAGCCAGGGCACA
GGGTGGTCTGCGTGGTGTGGGAGGCTCCAGCCCCCGACATTGACAAGACTGAGCTGGTGGAGCCACCGAGT
ACCTGGTGGTGCACCTCAAGGGCTCCTGGTGAAGGACAGCCAGTATGAGATGGACAGCGAGTTCGAGGGGGAGT
TGGCAGATGACCTGGCGGGCTTCTACCGCAGCGAGTACATGGAGGGCAATGTGAGAAAGGTGGTGGCCACTACAC
AGATGCAGGCTGCAGATGCCCGGAAGTCTTCCCATGCTTCGATGAGCCGGCCATGAAGGCCGAGTTCAACATCA
CGCTTATCCACCCCAAGGACCTGACAGCCCTGTCCAACATGCTTCCCAAAGGTCCCAGCACCCCACTTCCAGAAG
ACCCCAACTGGAATGTCACTGAGTTCCACACCACGCCCAAGATGTCCACGTACTTGTGGCCTTCATTGTCACTG
AGTTCGACTACGTGGAGAAGCAGGCATCCAATGGTGTCTTGATCCGGATCTGGGCCCGGGCCAGTGCCATTGCGG
CGGGCCACGGCGATTATGCCCTGAACGTGACGGGCCCCATCCTTAACCTTCTTGTGGTCAATTATGACACACCCT
ACCCACTCCCAAAATCAGACCAGATTGGCCTGCCAGACTTCAACGCCGGCGCCATGGAGAAGTGGGGACTGGTGA
CCTACCGGGAGAAGTCCCTGCTGTTGACCCCCCTGTCTCTCCAGCAGCAACAAGGAGCGGGTGGTCACTGTGA
TTGCTCATGAGCTGGCCACCAGTGTTTCGGGAACCTGGTGACCATAGAGTGGTGGAAATGACCTGTGGCTGAACG
AGGGCTTCGCCTCCTACGTGGAGTACCTGGGTGCTGACTATGCGGAGCCACCTGGAAGTGAAGACCTCATGG
TGCTGAATGATGTGTACCGCGTGTGTCAGTGGATGCACTGGCCTCCTCCACCCGCTGTCCACACCCGCTCGG
AGATCAACACGCCGGCCAGATCAGTGAGCTGTTTGACGCCATCTCCTACAGCAAGGGCGCCTCAGTCTCAGGA
TGCTCTCCAGCTTCTGTCCGAGGACGTATTCAAGCAGGGCCTGGCGTCTACCTCCACACCTTXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXGCTGTGAACAACCGGTCCATCCAATCCCCACCACCG
TGCGGGACATCATGAACCGCTGGACCCTGCAGATGGGCTTCCCGGTCACTACGGTGGATACCAGCACGGGGACCC
TTTCCAGGAGCACTTCTCTCTTGACCCCGATTCCAATGTTACCGCCCCCTCAGAATTCAATGGATTGTGCCAT
CACATCCATCAGAGATGGCAGACAGCAGCAGGACTACTGGCTGATAGATGTAAGAGCCAGAACGATCTCTCAG
CACATCAGGCAATGAGTGGGTCTGTGAACCTCAATGTGACGGGCTATTACCGGGTGAAGTACGACGAAGAGAA
CTGGAGGAAGATTCAAGTCAAGTGCAGAGAGACCACTCGGCCATCCCTGTCATCAATCGGGCACAGATCATTAA
TGACGCCCTTCAACCTGGCCAGTGCCATAAGGTCCCTGTCACTCTGGCGCTGAACAACACCCTCTTCTGATTGA
AGAGAGACAGTACATGCCCTGGGAGGCCGCCCTGAGCAGCCTGAGCTACTTCAAGCTCATGTTTGACCGCTCCGA
GGTCTATGGCCCCATGAAGAACTACCTGAAGAAGCAGGTACACCCCTCTTCATTCACTTCAGAAATAATACCAA
CAACTGGAGGGAGATCCAGAAAACCTGATGGACCAGTACAGCGAGGTTAATGCCATCAGCACCGCCTGCTCCAA
CGGAGTTCCAGAGTGTGAGGAGATGGTCTCTGGCCTTTTCAAGCAGTGGATGGAGAACCCCAATAATAACCCGAT
CCACCCCAACCTGCGGTCCACCGTCTACTGCAACGCTATCGCCAGGGCGGGGAGGAGTGGGACTTCGCCTG
GGAGCAGTTCCGAAATGCCACACTGGTCAATGAGGCTGACAAGCTCCGGGCAGCCCTGGCCTGCAGCAAAGAGTT
GTGGATCCTGAACAGGTACCTGAGCTACACCCTGAACCCGGACTTAATCCGGAAGCAGGACGCCACCTCTACCAT
CATCAGCATTACCAACAACGTCAATTGGGCAAGGTCTGGTCTGGGACTTTGTCCAGAGCAACTGGAAGAAGCTTTT
TAACGATTATGGTGGTGGCTCGTTCTCCTTCTCCAACCTCATCCAGGCAGTGACACGACGATTCTCCACCCAGTA
TGAGCTGCAGCAGCTGGAGCAGTTCAAGAAGGACAACGAGGAAACAGGCTTCGGCTCAGGCACCCGGGCCCTGGA
GCAAGCCCTGGAGAAGACGAAAGCCAACATCAAGTGGGTGAAGGAGAACAAGGAGGTGGTGTCTCAGTGGTTCAC
AGAAAACAGCAAATAGTCCCCAGCCCTTGAAGTCAACCGGCCCCCATGCAAGGTGCCACATGTGTCCATCCCAG
CGGCTGGTGCAGGGCCTCCATTCTGGAGCCCGAGGCACCAAGTGTCTCCCTCAAGGACAAAGTCTCCAGCCCA
CGTTCTCTCTGCCTGTGAGCCAGTCTAGTTCTCTGATGACCCAGGCTGCCTGAGCACCTCCAGCCCCCTGCCCTC
ATGCCAACCCCGCCCTAGGCCTGGCATGGCACCTGTGCGCCAGTGCCTGGGGCTGATCTCAGGGAAGCCAGCT
CCAGGGCCAGATGAGCAGAAGCTCTCGATGGACAATGAACGGCCTTGCTGGGGGCCGCCCTGTACCCTCTTTCAC
CTTTCCTAAAGACCCTAAATCTGAGGAATCAACAGGGCAGCAGATCTGTATATTTTTTTCTAAGAGAAAATGTA
AATAAAGGATTTCTAGATG

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FIGURE 4293

CCAGCGTTAGCCCGCGGCCAGGCAGCCGGGAGGAGCGGGCGCGCTCGGACCTCTCCCGCCCTGCTCGTTCGCTC
TCCAGCTTGGGATGGCCGGCTACCTGCGGGTCGTGCGCTCGCTCTGCAGAGCCTCAGGCTCGCGGCCGGCCTGGG
CGCCGGCGGCCCTGACAGCCCCACCTCGCAAGAGCATCCGCGGCGCCACTATGCCGACAAAAGGATCAAGGTGG
CGAAGCCCGTGGTGGAGATGGATGGTGATGAGATGACCCGTATTATCTGGCAGTTCATCAAGGAGAAGCTCATCC
TGCCCCACGTGGACATCCAGCTAAAGTATTTTGACCTCGGGCTCCCAAACCGTGACCAGACTGATGACCAGGTCA
CCATTGACTCTGCACTGGCCACCCAGAAGTACAGTGTGGCTGTCAAGTGTGCCACCATCACCCCTGATGAGGCCC
GTGTGGAAGAGTTCAAGCTGAAGAAGATGTGGAAGAGTCCCAATGGAATATCCGGAACATCCTGGGGGGGACTG
TCTTCCGGGAGCCCATCATCTGCAAAAACATCCCACGCCTAGTCCCTGGCTGGACCAAGCCCATCACCATTGGCA
GGCACGCCCCATGGCGACCAGTACAAGGCCACAGACTTTGTGGCAGACCGGGCCGGCACTTTCAAATGGTCTTCA
CCCCAAAAGATGGCAGTGGTGTCAAGGAGTGGGAAGTGTACAACCTTTCCCGCAGGCGGGCTGGGCATGGGCATGT
ACAACACCGACGAGTCCATCTCAGGTTTTGCGCACAGCTGCTTCCAGTATGCCATCCAGAAGAAATGGCCGCTGT
ACATGAGCACCAAGAACACCATACTGAAAGCCTACGATGGGCGTTTTCAAGGACATCTTCCAGGAGATCTTTGACA
AGCACTATAAGACCGACTTCGACAAGAATAAGATCTGGTATGAGCACCGGCTCATTGATGACATGGTGGCTCAGG
TCCTCAAGTCTTTCGGGTGGCTTTGTGTGGGCTGCAAGAACTATGACGGAGATGTGCAGTCAGACATCCTGGCCC
AGGGCTTTGGCTCCCTTGGCCTGATGACGTCCGTCTGGTCTGCCCTGATGGGAAGACGATTGAGGCTGAGGCCG
CTCATGGGACCGTCACCCGCCACTATCGGGAGCACCAAGGGCCGGCCCCACCAGCACCAACCCCATCGCCAGCA
TCTTTGCCTGGACACGTGGCCTGGAGCACCGGGGGAAGCTGGATGGGAACCAAGACCTCATCAGGTTTGCCGAGA
TGCTGGAGAAGGTGTGCGTGGAGACGGTGGAGAGTGGAGCCATGACCAAGGACCTGGCGGGCTGCATTACGGCC
TCAGCAATGTGAAGCTGAACGAGCACTTCTGAACACCATGGACTTCTCGACACCATCAAGAGCAACCTGGACA
GAGCCCTGGGCAGGCAGTAGGGGGAGGCGCCACCCATGGCTGCAGTGGAGGGGCCAGGGCTGAGCCGGCGGGTCC
TCCTGAGCGCGGCAGAGGGTGAGCCTCACAGCCCCCTCTCTGGAGGCCTTTCTAGGGGATGTTTTTTTATAAGCCA
GATGTTTTTAAAAGCATATGTGTGTTTTCCCTCATGGTGACGTGAGGCAGGAGCAGTGCGTTTTACCTCAGCCAG
TCAGTATGTTTTGCATACTGTAATTTATATTGCCCTTGGAACACATGGTGCCATATTTAGCTACTAAAAAGCTCT
TCACAAAAAAGGATTCCGCG

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FIGURE 4294

MAGYLRVVRS LCRASGSRPAWAPAALTAPTSQEHPRRHYADKRIKVAKPVVEMDGDDEMTRI IWQFIKEKLILPHV
DIQLKYFDLGLPNRDQTDQVTIDSALATQKYSVAVKCATITPDEARVEEFKLKKMWKSPNGTIRN ILGGTVFRE
PIICKNIPRLVPGWTKPITIGRHAHGDQYKATDFVADRAGTFKMVFTPKDGS GVKWEVYNFPAGGVGMGM YNTD
ESISGFAHSCFYAIQKKWPLYMSTKNTILKAYDGRFKDIFQEIFDKHYKTDFDKNKIWYEHRLIDDMVAQVLKS
SGGFVWACKNYDGDVQSDILAQGGFSLGLMTSVLVCPDGKTIEAEEAHGTVTRHYREHQGRPTSTNPIASIFAW
TRGLEHRGKLDGNQDLIRFAQMLEKVCVETVESGAMTKDLAGCIHGLSNVKLNEHFLNTMDFLDTIKSNLDRALG
RQ

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FIGURE 4295

AGAACCCCGCGGGGTCTGAGCAGCCCAGCGTGCCCATTCAGCGCCCGCGTCCCCGAGCATGCCGCGCCCCCGC
CTGCTGGCCGCGCTGTGCGGCGCGCTGCTCTGCGCCCCAGCCTCCTCGTCGCCCTGGATATCTGTTCCAAAAAC
CCCTGCCACAACGGTGTTTATGCGAGGAGATTCCCAAGAAGTGCGAGGAGATGTCTTCCCCTCGTACACCTGC
ACGTGCCTTAAGGGCTACGCGGGCAACCACTGTGAGACGAAATGTGTGAGCCACTGGGCCTGGAGAATGGGAAC
ATTGCCAACTCACAGATCGCCGCTCGTCTGTGCGTGTGACCTTCTTGGGTTTGCAGCATTGGGTCCCGGAGCTG
GCCCGCTGAACCGCGCAGGCATGGTCAATGCCTGGACACCCAGCAGCAATGACGATAACCCCTGGATCCAGGTG
AACCTGCTGCGGAGGATGTGGGTAACAGGTGTGGTGACGCAGGGTGCCAGCCGCTTGGCCAGTCATGAGTACCTG
AAGGCCTTCAAGGTGGCCTACAGCCTTAATGGACACGAATTCGATTTTCATCCATGATGTTAATAAAAAACACAAG
GAGTTTGTGGGTAACCTGGAACAAAAACGCGGTGCATGTCAACCTGTTTGAGACCCCTGTGGAGGCTCAGTACGTG
AGATTGTACCCACAGAGCTGCCACACGGCCTGCACTCTGCGCTTTGAGCTACTGGGCTGTGAGCTGAACGGATGC
GCCAATCCCCTGGGCCTGAAGAATAACAGCATCCCTGACAAGCAGATCACGGCCTCCAGCAGCTACAAGACCTGG
GGCTTGCACTCTTTCAGCTGGAACCCCTCCTATGCACGGCTGGACAAGCAGGGCAACTTCAACGCCTGGGTTGCG
GGGAGCTACGGTAACGATCAGTGGCTGCAGGTGGACCTGGGCTCCTCGAAGGAGGTGACAGGCATCATCACCCAG
GGGGCCCGTAACCTTGGCTCTGTCCAGTTTGTGGCATCCTACAAGGTTGCCTACAGTAATGACAGTGCGAACTGG
ACTGAGTACCAGGACCCAGGACTGGCAGCAGTAAGATCTTCCCTGGCAACTGGGACAACCACTCCACAAGAAG
AACTTGTTTGAGACGCCCATCCTGGCTCGCTATGTGCGCATCCTGCCTGTAGCCTGGCACAACCGCATCGCCCTG
CGCTGGAGCTGCTGGGCTGTTAGTGGCCACCTGCCACCCCAAGTCTTCTGCTTTCCATGGGCCCCGCTGCCTC
TTGGCTTCTCAGCCCCTTTAAATCACCATAGGGCTGGGGACTGGGGAAGGGGAGGGTGTTAGAGGCAGCACCAC
CACACAGTCACCCCTCCCTCCCTCTTCCCACCCCTCCACCTCTCACGGGCCCTGCCCCAGCCCTAAGCCCCGTC
CCCTAACCCCCAGTCCCTCACTGTCTGTTTCTTAGGCACTGAGGGATCTGAGTAGGTCTGGGATGGACAGGAAA
GGGCAAAGTAGGGCGTGTGGTTTCCCTGCCCTGTCCGGACCGCCGATCCCAGGTGCGTGTGTCTCTGTCTCTCC
TAGCCCTCTCTCACACATCACATTCCCATGGTGGCCTCAAGAAAGGCCCGGAAGCGCCAGGCTGGAGATAACAG
CCTCTTGCCCGTCGGCCCTGCGTCGGCCCTGGGGTACCATGTGGCCACAACCTGCTGTGGCCCCCTGTCCCAAGA
CACTTCCCCTTGTCTCCCTGGTTGCCTCTCTTGGCCCTTGTCTGAAGCCCAGCGACACAGAAGGGGGTGGGGCG
GGTCTATGGGGAGAAAGGGAGCGAGGTGAGGAGGGCATGGGTTGGCAGGGTGGGCGTTTGGGGCCCTCTATGC
TGGCTTTTACCCCAAGGACACAGGCAGCTTCCAAAATATATTTATCTTCTTCACGGG

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FIGURE 4296

GGCCGCGCGTCCCAGAGAGCCAGCCCCGGCGCCGTCGCGGGGAAGTGCCGCCTGGTGGGGTACGGCGCCTGAA
GCCACAGTGCGCCGCCGAGCCGAGGTGGCCTCGAGCGCGCGGCTGACAGCACAGCCCGCTGAGCTGCCTCCC
GCGCTCCTCCCGAGGAAAGGATTTTGATTTCAAAGAAAGGAAGGAAGGACAACCTCCAGCTTCCCCGTCC
CGCCCTCCCGCTCCGAGGGCCGCGCAGGCCATGCCAAGAAGGCGGCGGCGGCGGAACCAGCAGAAGGGAC
TTTCTGGCAGCCCGGCGACGAGGAGCGCGGACAGTAGTTTGCTCTGCCCCGTTTCATGGTTCTTCAAGCCCT
CTAGGAGGCCGAAAGCTGCAGCCCTCCCTTGCCCCGAAGAGCCTTCCGCGTTCTCTCGCCCTCGGGCCACCC
CGCGCCGCCCGGGCTCCCGCCGCCGAGCCAGTGCCTCTGCCCCGCGGCGGTGGATGGCATGATGGTGCGGGA
AGGCACCGCGGCCTTGCCAGCTGAGTCGCGAGCGCGCGCGGCGGCGGCGAGTGGCCGCGGCGGCGGTGGT
AGCGGGCTCCCCAGCGGCATGCCAGTGCCCCCGGGCGCGAGTGGCTAGCGCGAGCGCCGGGAAGCCACTGGCGA
GGCGGCTTCTCCGGCTCTGCGAGCGCCATCGCGGGGCGAGTCTGCGAGCCGCGGAAGAGCTGGTATCCGTCTG
CGACCACTGCAAGGGCAAGATGCAGCTGGTGGCTGACCTGCTGCTGCTGTCGAGCGAGGCGCGGCCGTGCTCTT
CGAGGGCCCCCGCTCCTCTGGTGCCGGCGCCAGTCTTCGAGCAGTGCCGGGACACCATCATCGCGCGCACCAA
GGGGCTCTCCATCCTCACCCACGACGTGCAGAGCCAGTCAACATGGGCCGCTTCGGGGAGGCGGGGGACAGCCT
GGTGGAGCTGGGCGACCTGGTGGTGTGCTGACCGAGTGCTCGGCCACGCGGCCTATCTGGCCGCTGTGGCCAC
GCCGGGCGCCAGCCGCGCAGCCGGGCGCTGGTGGACCGCTACCGCTGACGCGATGCCGCCACGAGGTGGAGCA
GGGTTGCGCCGTGCTGCGCGCCACGCCGCTGGCCGACATGACGCCGCGAGTGTGCTGGAGGTGTGCGAGGGCCT
GTCGCGCAACCTCAAGTTCTGACGGACGCGTGCGCCCTGGCCAGTGACAAGTCACGGGACCGCTTTTCGCGGGA
GCAGTTCAAGCTGGGCGTCAAGTGATGAGCACCAGCGCGTGGCGGCTGCTGGCCTGCGTGCAGAGGTGAAGGT
GGCGCCAGTGAGCTGGCGCGCAGCCGCTGTGCGCTCTTCAGCGGGCCCCGGTGCAGGCAGTGAGCGCCCTGGT
AGGCTTCGCCACCGAGCCGCGAGTTCTGGGTGCGCGGCGAGTGTGAGCGCCGAGGGCAAGGCGGTGCAGACCGC
CATCCTGGGCGGCGCCATGAGCGTGGTGTGCGCCTGCGTGTCTGACCCAGTGCCCTAGGGATCTGGCGCAGCA
CCCCGACGGGGGCGCCAAGATGTGCGACCACAGGGAGAGGCTGAGGAACTCGGCCTGCGCCGTGTCTGAAGGCTG
CACCTGCTATCTCAGGCTTTAAGGGAGAGGTCTTCGCCCAGGACTTTACCGCCAGTGAATTCCAATTCTGTGAA
TTAGCACCCACCCCATACCCCTTCTTCCACCCCGAGCTAAAGGAAGATACTTACTCTCTGCCCCCTCTCCATT
TATACCAAGAAATCATAGGTGAAACCCCTACCTCCCCAACGTTAAATGCTCGAGAGGAATCTTCCACAAGGC
AGGGCCATGCACGCAACCTGCACACGCACTTGGAGGGCCAGGTGTCTCTCCACCAGCCCCCATGCAGTAGGGAC
TGGAAGATATGTCATCTGCTGGTTGTGTTATCACTCCACCCCTACCCAGCCGCTTCCGGAATTTCTCAAC
TAAATTTCAATTATGGGCAGGAAGGAGGTGATGGGTTCAATTTTATTTTGTGTTTTTAATTAAAGAA
AGGTTACCTCAGTTTTCACTCCTTAGACATGGATGTAGCTACCTTTTTTTGTATGCTTTTTTTTTTAAGCAAT
CGTGTGAAATTAGGAGTATACTTGGTGAGGAAAGAGTATGAATTTGCCATGTGATTGCAATGGGGGGAAGCTA
CTGTGAGCGTGTGTTTTTTAATTTACACTATAGAGTGATTTTTTTTCCCCAACGTCAAGTTTTTACCTTGCA
GTACTGGAGTATTTATTTTATCTATTAAATGTTATGTTTCTCAGAAAAAACCTCGTGCGCAATCTTGGCCTC
GAGGGCCAAAT

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FIGURE 4297

MASGSAGKPTGEAASPAPASAIGGASSQPRKRLVSVCDHCKGKMQLVADLLLLSSEARPVLFEGPASSGAGAESF
EQCRDTIIARTKGLSILTHDVQSQLNMGRFGEAGDSLVELGDLVVSLTECSAHAAYLAAVATPGAQPAQPGLVDR
YRVTRCRHEVEQGCAVLRATPLADMTPQLLLEVSQGLSRNLKFLTDACALASDKSRDRFSREQFKLGVKCMSTSA
SALLACVREVKVAPSELARSRCALFSGPLVQAVSALVGFATEPQFLGRAAAVSAEGKAVQTAILGGAMSVVSACV
LLTQCLRDLAQHPDGGAKMSDHRERLRNSACAVSEGCTLLSQALRERSSPRTLPPVNSNSVN

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FIGURE 4298A

GAGCTAGCGCTCAAGCAGAGCCCAGCGCGGTGCTATCGGACAGAGCCTGGCGAGCGCAAGCGGCGCGGGGAGCCA
GCGGGGCTGAGCGCGGCCAGGGTCTGAACCCAGATTTCAGACTAGCTACCACTCCGCTTGCCACGCCCCGGG
AGCTCGCGGCGCCTGGCGGTGAGCGACCAGACGTCCGGGGCCGCTGCGCTCCTGGCCCGCAGGCGTGACACTGT
CTCGGCTACAGACCCAGAGGGAGCACACTGCCAGGATGGGAGCTGCTGGGAGGCAGGACTTCCTCTTCAAGGCCA
TGCTGACCATCAGCTGGCTCACTCTGACCTGCTTCCCTGGGGCCACATCCACAGTGCGTGGGTGCCCTGACC
AGAGCCCTGAGTTGAACCCCTGGAACCCCTGGCCATGACCAAGACCACCATGTGCATATCGGCCAGGGCAAGACAC
TGCTGCTCACCTCTTCTGCCACGGTCTATTCCATCCACATCTCAGAGGGAGGCAAGCTGGTCATTAAAGACCACG
ACGAGCCGATTGTTTTGCGAACCCGGCACATCCTGATTGACAACGGAGGAGAGCTGCATGCTGGGAGTGCCCTCT
GCCCTTTCCAGGGCAATTTACCATCATTTTGTATGGAAGGGCTGATGAAGGTATTAGCCGGATCCTTACTATG
GTCTGAAGTACATTGGGGTTGGTAAAGGAGGCGCTCTTGAGTTGCATGGACAGAAAAAGCTCTCCTGGACATTTT
TGAACAAGACCCCTTACCCAGGTGGCATGGCAGAAGGAGGCTATTTTTTTGAAAGGAGCTGGGGCCACCGTGGAG
TTATTGTTTCATGTCATCGACCCCAAATCAGGCACAGTCATCCATTCTGACCGGTTTGACACCTATAGATCCAAGA
AAGAGAGTGAACGTCTGGTCCAGTATTTGAACGCGGTGCCCGATGGCAGGATCCTTTCTGTTGCAGTGAATGATG
AAGGTTCTCGAAATCTGGATGACATGGCCAGGAAGGCGATGACCAAATTGGGAAGCAAACACTTCTGACCTTG
GATTTAGACACCCCTTGGAGTTTTCTAACTGTGAAAGGAAATCCATCATCTTCAGTGGAAGACCATATTGAATATC
ATGGACATCGAGGCTCTGCTGCTGCCGGGTATTCAAATTGTTCCAGACAGAGCATGGCGAATATTTCAATGTTT
CTTTGTCCAGTGAGTGGGTTCAAGACGTGGAGTGGACGGAGTGGTTCGATCATGATAAAGTATCTCAGACTAAAG
GTGGGGAGAAAATTTAGACCTCTGGAAGCTCACCCAGGAAAAATATGCAATCGTCCCATTGATATACAGGCCA
CTACAATGGATGGAGTTAACCTCAGCACCGAGGTTGTCTACAAAAAGGCCAGGATTATAGGTTTGCTTGCTACG
ACCGGGGCGAGCCTGCCGGAGCTACCGTGTACGGTTCCTCTGTGGGAAGCCTGTGAGGCCCAAACCTCACAGTCA
CCATTGACACCAATGTGAACAGCACCATTCTGAACCTTGGAGGATAATGTACAGTCATGGAAACCTGGAGATACCC
TGGTCATTGCCAGTACTGATTACTCCATGTACCAGGCAGAAGAGTTCCAGGTGCTTCCCTGCAGATCCTGCGCCC
CCAACCAGGTCAAAGTGGCAGGGAACCAATGTACCTGCACATCGGGGAGGAGATAGACGGCGTGGACATGCGGG
CGGAGGTTGGGCTTCTGAGCCGGAACATCATAGTGATGGGGGAGATGGAGGACAAATGCTACCCCTACAGAAACC
ACATCTGCAATTTCTTTGACTTCGATACCTTTGGGGGCCACATCAAGTTTGCTCTGGGATTTAAGGCAGCACACT
TGGAGGGCACGGAGCTGAAGCATATGGGACAGCAGCTGGTGGGTGAGTACCCGATTCACTTCCACCTGGCCGGTG
ATGTAGACGAAAGGGGAGGTTATGACCCACCCACATACATCAGGGACCTCTCCATCCATCATACATTCTCTCGCT
GCGTCACAGTCCATGGCTCCAATGGCTTGTGATCAAGGACGTTGTGGGTATAACTCTTTGGGCCACTGCTTCT
TCACGGAAGATGGGCCGGAGGAACGCAACACTTTTGACCACTGTCTTGGCTCCTTGTCAGTCTGGAACCCCTCC
TCCCTCGGACCGTGACAGCAAGATGTGCAAGATGATCAGAGGACTCCTACCCGGGGTACATCCCCAAGCCCA
GGCAAGACTGCAATGCTGTGTCCACCTTCTGGATGGCCAATCCCAACAACAACCTCATCAACTGTGCCGCTGCAG
GATCTGAGGAAACTGGATTTTGGTTTATTTTTTACCACGTACCAACGGGCCCCCTCGTGGAATGTACTCCCCAG
GTTATTGAGAGCACATTCCACTGGGAAAATTTCTATAACAACCGAGCACATTCCAACCTACCGGGCTGGCATGATCA
TAGACAACGGAGTCAAAACCACCGAGGCCTCTGCCAAGGACAAGCGGCCGTTCTCTCAATCATCTCTGCCAGAT
ACAGCCCTCACCAGGACGCCGACCCGCTGAAGCCCCGGGAGCGGCCATCATCAGACACTTCATTGCCTACAAGA
ACCAGGACCACGGGGCTGGCTGCGCGGCGGGGATGTGTGGCTGGACAGCTGCCGGTTTGCTGACAATGGCATTG
GCCTGACCCTGGCCAGTGGTGGAACTTCCC GTATGACGACGGCTCCAAGCAAGAGATAAAGAACAGCTTGTTTG
TTGGCGAGAGTGGCAACGTGGGGACGGAATGATGGACAATAGGATCTGGGGCCCTGGCGGCTTGGACCATAGCG
GAAGGACCCTCCCTATAGGCCAGAATTTTCCAATTAGAGGAATTCAGTTATATGATGGCCCCATCAACATCCAAA
ACTGCACTTTCCGAAAGTTTGTGGCCCTGGAGGGCCGGCACACCAGCGCCCTGGCCTTCCGCCTGAATAATGCCT
GGCAGAGCTGCCCCCATAACAACGTGACCGGCATTGCCCTTGAGGACGTTCCGATTACTTCCAGAGTGTCTTCTG
GAGAGCCTGGGGCCTGGTTCAACCAGCTGGACATGGATGGGGATAAGACATCTGTGTTCCATGACGTGACGGCT
CCGTGTCCGAGTACCCTGGCTCCTACCTCACGAAGATGACAACCTGGCTGGTCCGGCACCCAGACTGCATCAATG
TTCCCAGCTGGAGAGGGGCCATTTGCAGTGGGTGCTATGCACAGATGTACATTCAAGCCTACAAGACCAGTAACC
TGCGAATGAAGATCATCAAGAATGACTTCCCCAGCCACCCCTTTACCTGGAGGGGGCGCTCACCAGGAGCACCC
ATTACCAGCAATACCAACCGGTTGTACCCCTGCAGAAGGGCTACACCATCCACTGGGACCAGACGGCCCCCGCG
AACTCGCCATCTGGCTCATCAACTTCAACAAGGGCGACTGGATCCGAGTGGGGCTCTGCTACCCGCGAGGCACCA
CATCTCCATCCTCTCGGATGTTCACAATCGCCTGCTGAAGCAAACGTCCAAGACGGGCGTCTTCGTGAGGACCT

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FIGURE 4298B

TGCAGATGGACAAAGTGGAGCAGAGCTACCCTGGCAGGAGCCACTACTACTGGGACGAGGACTCAGGGCTGTTGT
TCCTGAAGCTGAAAGCTCAGAACGAGAGAGAGAAGTTTGCTTCTGCTCCATGAAAGGCTGTGAGAGGATAAAGA
TTAAAGCTCTGATTCCAAAGAACGCAGGCGTCAGTGACTGCACAGCCACAGCTTACCCCAAGTTCACCGAGAGGG
CTGTCTGATAGACGTGCCGATGCCCAAGAAGCTCTTTGGTTCTCAGCTGAAAACAAAGGACCATTCTTTGGAGGTGA
AGATGGAGAGTTCCAAGCAGCACTTCTTCCACCTCTGGAACGACTTCGCTTACATTGAAGTGGATGGGAAGAAGT
ACCCCAAGTTCGGAGGATGGCATCCAGGTGGTGGTGATTGACGGGAACCAAGGGCGCGTGGTGAGCCACACGAGCT
TCAGGAACCTCATTCTGCAAGGCATACCATGGCAGCTTTTCAACTATGTGGCGACCATCCCTGACAATTCCATAG
TGCTTATGGCATCAAAGGGAAGATACGTCTCCAGAGGCCCATGGACCAGAGTGCTGAAAAAGCTTGGGGCAGACA
GGGGTCTCAAGTTGAAAGAGCAAATGGCATTCTGTTGGCTTCAAAGGCAGCTTCCGGCCCATCTGGGTGACACTGG
ACACTGAGGATCACAAGGCCAAAATCTTCCAAGTTGTGCCATCCCTGTGGTGAAAGAAGAAGATTGTGAGGAC
AGCTGCCGCCCGGTGCCACCTCGTGGTAGACTATGACGGTGACTCTTGGCAGCAGACCAGTGGGGGATGGCTGGG
TCCCCAGCCCCCTGCCAGCAGCTGCCTGGGAAGGCCGTGTTTCAGCCCTGATGGGCCAAGGGAAGGCTATCAGAG
ACCCTGGTGCTGCCACCTGCCCTACTCAAGTGTCTACCTGGAGCCCCCTGGGGCGGTGCTGGCCAATGCTGGAAA
CATTCACTTTCTGAGCCTCTTGGGTGCTTCTCTCTATCTGTGCTCTTCAGTGGGGGTTTGGGGACCATATC
AGGAGACCTGGGTGTGCTGACAGCAAAGATCCACTTTGGCAGGAGCCCTGACCAGCTAGGAGGTAGTCTGGAG
GGCTGGTCATTACAGATCCCCATGGTCTTCAGCAGACAAGTGAGGGTGGTAAATGTAGGAGAAAGAGCCTTGGC
CTTAAGGAAATCTTTACTCTGTAAAGCAAGAGCCAACCTCACAGGATTAGGAGCTGGGGTAGAACTGGCTATCCT
TGGGGAAGAGGCAAGCCCTGCCCTCGGCCGTGCCACCTTTCAGGAGACTTTGAGTGGCAGGTTTGGACTTGGAC
TAGATGACTCTCAAAGGCCCTTTTAGTTCTGAGATTCCAGAAATCTGCTGCATTTACATGGTACCTGGAACCCA
ACAGTTTATGGATATCCACTGATATCCATGATGCTGGGTGCCCCAGCGCACACGGGATGGAGAGGTGAGAACTAA
TGCCTAGCTTGAGGGGTCTGCAGTCCAGTAGGGCAGGCAGTCAGGTCCATGTGCACTGCAATGCCAGGTGGAGAA
ATCACAGAGAGGTAAATGGAGGCCAGTGCCATTTAGAGGGGAGGCTCAGGAAGGCTTCTTGCTTACAGGAATG
AAGGCTGGGGGCATTTTGTGGGGGAGATGAGGCAGCCTCTGGAATGGCTCAGGGATTACGCCCTCCCTGCCGC
TGCTGCTGAAGCTGGTGACTACGGGTGCCCTTTGCTCACGTCTCTTGCCCACTCATGATGGAGAAGTGTG
GTCAGAGGGGAGCAATGGGCTTTGCTGCTTATGAGCACAGAGGAATTCAGTCCCAGGCAGCCCTGCCTCTGACT
CCAAGAGGGTGAAGTCCACAGAAGTGAGCTCCTGCCTTAGGGCTCATTGCTCTTCATCCAGGGAAGTACGAC
AGGGGGCCTCCAGGAGACCCTAGATGTGCTCGTACTCCCTCGCCCTGGGATTTAGAGCTGGAAATATAGAAAAT
ATCTAGCCCAAAGCCTTCATTTTAACAGATGGGGAAAGTGAGCCCCAAGATGGGAAAGAACCACACAGCTAAGG
GAGGGCCTGGGGAGCCCCACCCTAGCCCTTGCTGCCACACCACATTGCCTCAACAACCGCCCCAGAGTGCCAG
GCACTCCTGAGGTAGCTTCTGGAAATGGGGACAAGTCCCCTCGAAGGAAAGGAAATGACTAGAGTAGAATGACAG
CTAGCAGATCTCTTCCCTCCTGCTCCCAGCGCACACAAACCCGCCCTCCCCTTGGTGTGGCGGTCCCTGTGGCC
TTCATTTGTTCACTACCTGTGAGCCAGCCTGGGTGCACAGTAGCTGCAACTCCCCATTGGTGCTACCTGGCTC
TCCTGTCTCTGCAGCTCTACAGGTGAGGCCAGCAGAGGGAGTAGGGCTCGCCATGTTTCTGGTGAGCCAATTTG
GCTGATCTTGGGTGTCTGAACAGCTATTGGGTCCACCCAGTCCCTTTCAGCTGCTGCTTAATGCCCTGCTCTCT
CCCTGGCCACCTTATAGAGAGCCCAAAGAGCTCCTGTAAAGGGGAGAACTCTATCTGTGGTTTATAATCTTGCA
CGAGGCACCAGAGTCTCCCTGGGTCTTGTGATGAACTACATTTATCCCTTTCTGCCCCAACCAAACTCTTT
CCTTCAAAGAGGGCCTGCCTGGGTCCCTCCACCCAACTGCACCCATGAGACTCGGTCCAAGAGTCCATTCCCCAG
GTGGGAGCCAAGTGTGAGGGAGGTCTTTCCACCAAACATCTTTCAGCTGCTGGGAGGTGACCATAGGGCTCTGC
TTTTAAAGATATGGCTGCTTCAAAGGCCAGAGTCACAGGAAGGACTTCTTCCAGGGAGATTAGTGGTGATGGAGA
GGAGAGTTAAATGACCTCATGTCTTCTTGTCCACGGTTTTGTGAGTTTTCACTCTTCAATGCAAGGGTCTC
ACACTGTGAACCACTTAGGATGTGATCACTTTCAGGTGGCCAGGAATGTTGAATGTCTTTGGCTCAGTTTATTTA
AAAAAGATATCTATTTGAAAGTTCTCAGAGTTGTACATATGTTTTCAGGTACAGGATCTGTACATAAAAGTTTCT
TTCTTAAACCATTCACCAAGAGCCAATATCTAGGCATTTTCTTGGTAGCACAAATTTTCTTATTGCTTAGAAAAT
TGCTCTCCTTGTATTCTGTTTGTAAAGACTTAAGTGAGTTAGGTCTTTAAGGAAAGCAACGCTCCTCTGAAATG
CTTGTCTTTTTTCTGTTGCCGAAATAGCTGGTCCCTTTTTCGGGAGTTAGATGTATAGAGTGTGTGTATGTAAACA
TTTCTTGTAGGCATCACCATGAACAAAGATATATTTCTATTTATTATATGTGCACTTCAAGAAGTCACTG
TCAGAGAAATAAAGAATTGTCTTAAATGTC

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FIGURE 4299

MGAAGRQDFLFKAMLTISWLTILTCFPGATSTVAAGCPDQSPQLQPNPBGHDQDHHVHIGQGKTLTLLTSSATVYSI
HISEGGKLVIKDHDEPIVLRTRHILIDNGGELHAGSALCFQGNFTIILYGRADEGIQPDPIYGLKYIGVGKGA
LELHGQKKLSWTFNLKTLHPGGMAEGGYFFERSWGHARGVIVHVIDPKSGTVIHSDRFDITYRSKESERLVQYLN
VPDGRILSVAVNDEGSRNLDDMARKAMTKLGSKHFLHLGFRHPWSFLTIVKGNPSSSVEDHIEYHGHRGSAAARVF
KLFQTEHGEYFNVSLSEWVQDVEWTEWFDHDKVSQTKGGEKISDLWKAHPGKICNRPIDIQATTMDGVNLSTEV
VYKKGQDYRFACYDRGRACRSYRVFLCGKPVVRPKLTVTIDTNVNSTILNLEDNVQSWKPGDTLVIASDYSMYQ
AEEFQVLPSCRSCAPNQVKVAGKPMYLIHIGEEIDGVDMAEVLGSLRNIIVMGEMEDKCYPYRNHICNFFDFDTFG
GHIKFALGFKAHLEGTELKHMGOQLVGQYPIHFHLAGDVDERGGYDPPTYIRDLSIHHTFSRCVTVHGSNGLLI
KDVVGYNLGHCFTEDEGPEERNTFDHCLGLLVKSGTLLPSDRDSKMCKMITEDSYPGYIPKPRQDCNAVSTFWM
ANPNNNLINCAAAGSEETGFWFIFHHVPTGPSVGMYSYSEHIPLGKFYNNRAHSNYRAGMIIDNGVKTTEASA
KDKRPFLSIISARYSPHQDADPLKPREPAIRHFIAYKNQDHGAWLRGGDVWLDSCRADNGIGLTLASGGTFPY
DDGSKQEIKNSLFVGESGNVGTMMDNRIWGPGLDHSGRITLPIGQNFPIRGILYDGPINIQNCTFRKFVALEG
RHTSALAFRLNNAWQSCPHNNVTGIAFEDVPITSRVFFGEPGPWFNQDMDGDKTSVFHDVDGSVSEYPGSYLTK
NDNWLVRHPDCINVPDWRGAICSGCYAQMYIQAYKTSNLRMKIKNDFPSHPLYLEGALTRSTHYQQYQPVVTLQ
KGYTIHWDQTAPAEALAIWLINFNKGDWIRVGLCYPRGTTFSSILSDVHNRLKQTSKTGVFVRTLQMDKVEQSYPG
RSHYYWDEDSGLLFLKLKAQNEREKFAFCSMKGCEIRIKIKALIPKNAGVSDCTATAYPKFTERAVVDVPMPPKLF
GSQKTKDHFLEVKMESSKQHFFHLWNDFAFIEVDGKKYPSSSEDGIQVVVIDGNQGRVVSHTSFRNSILOGIPWQ
LFNYVATIPDNSIVLMASKGRYVSRGPWTRVLEKLGADRGLKLKEQMAFVGFKGSFRPIWVTLDTEDEHKAKIFQV
VPIPVVKKKKL

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FIGURE 4300

AGTCCTGCTCTCCGCACGCCACCTTAGGCCCGCAGCCGTGCCGGGTGCTCTTCAGCATGTCTTCATCCCGGTGG
CCGAGGATTCCGACTTCCCCATCCACAACCTGCCCTACGGCGTCTTCTCGACCAGAGGCGACCCAAGACCGAGGA
TAGGTGTGGCCATTGGCGACCAGATCCTGGACCTCAGCATCATCAAGCACCTCTTTACTGGTCTGTCTCTCCA
AACACCAGGATGTCTTCAATCAGCCTACACTCAACAGCTTCATGGGCCTGGGTGACGGCTGCCTGGAAGGAGGCGA
GAGTGTTCTTGCAGAACCTTGCTGTCTGTGAGCCAAGCCAGGCTCAGAGATGACACCGAACTTCGGAAGTGTGCAT
TCATCTCCCAGGCTTCTGCCACGATGCACCTTCAGCCACCATAGGAGACTACACAGACTTCTATTCTCTCGGC
AGCATGCTACCAACGTCGGAATCATGTTTCAGGGACAAGGAGAATGCGTTGATGCCAAATTGGCTGCACTTACCAG
TGGGCTACCATGGCCGTGCCTCCTCTGTCTGTTGGTGTCTGGCACCCCAATCCGAAGGCCCATGGGACAGATGAAAC
CTGATGACTCTAAGCCTCCCGTATATGGTGCCTGCAAGCTCTTGGACATGGAGCTGGAAATGGCTTTTTTTGTAG
GCCCTGGAAACAGATTGGGAGAGCCGATCCCCATTTCCAAGGCCCATGAGCACATTTTGGAAATGGTCCTTATGA
ACGACTGGAGTGCACGAGACATTGAGAAGTGGGAGTATGTCCCTCTCGGGCCATTCTTGGGAAGAGTTTTGGGA
CCACTGTCTCTCCGTGGGTGGTGCCCATGGATGCTCTCATGCCCTTTGCTGTGCCCAACCCGAAGCAGGACCCCA
GGCCCCTGCCGTATCTGTGCCATGACGAGCCCTACACATTTGACATCAACCTCTCTGTAACTGAAAGGAGAAG
GAATGAGCCAGGCGGCTACCATATGCAAGTCCAATTTTAAGTACATGTACTGGACGATGCTGCAGCAGCTCACTC
ACCACTCTGTCAACGGCTGCAACCTGCGGCCGGGGGACCTCCTGGCTTCTGGGACCATCAGCGGGCCGGAGCCAG
AAACTTCGGCTCCATGTTGGAAGTGTCTGTGGAAGGGAACGAAGCCCATAGACCTGGGGAATGGTCAGACCAGGA
AGTTTCTGCTGGACGGGGATGAAGTCATCATAACAGGGTACTGCCAGGGGGATGGTTACCGCATCGGCTTTGGCC
AGTGTGCTGGAAAAGTGTCTGCCTGCTCTCCTGCCATCATGAGATTTTCTCTGCTCTTCTGGAAACAAAGGGCTCA
AGCACCCCTTTCAACCCTGTGACTGGGGTCTCCTCGGGCTGTAGGCCTGGTCCGCCATTCAAGTACAAATAAA
GCCATTGTGCTCTGAGGCCTGC

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FIGURE 4301

MSFIPVAEDSDFPPIHNLPYGVFSTRGDPRPRIGVAIGDQILDLSIIKHLFTGPFVLSKHQDVFNQPTLNSFMGLGQ
AAWKEARVFLQNLLSVSQARLRDDTELKCAFISQASATMHLPATIGDYTDFYSSRQHATNVGIMFRDKENALMP
NWLHLPVGYHGRASSVVVSGTPIRRPMGQMKPDDSKPPVYGACKLLDMELEMAFFVGPGNRLGEP I P I S K A H E H I
FGMVLMDWSARDIQWEYVPLGPFLGKSFGTTVSPWVVPMDALMPFAVFNPKQDPRPLPYLCHDEPYTFDINLS
VNLKGEGMSQAATICKSNFKYMYWTMLQQLTHHSVNGCNLRPGDLLASGTISGPEPENFGSMLELSWKGTKPIDL
GNGQTRKFLLDGDEVIITGYCQGDGYRIGFGQCAGKVLPAALLPS

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FIGURE 4302

TCGACATGGCGGTTACCCTGAGTCTCTTGCTGGGCGGGCGCGTTTGCGCCGCCGTCACTCGCTGTGGGTTTCGCGA
CCCCGGGGGTGGCGGGCCAGGCCCTATTGGCCGGGAGCCGGACCCGATTCCGACTGGGAGCCGGAGGAACGGG
AGCTGCAGGAGGTGGAGAGGTACCGGCTTCTCCCGGGCCCTCAGCTTGAAGCAGGGCCCTCGTGCCCCGGCGCTC
CAGGCCGCGCCCCCTTGCGCGCGGGTGTCTGCCGCTGCTTGCGCAGCGGCCCTTGTTTCTTCTTACCCGTTGTT
AGGGGCGCAGCGTCAGGTGTTTACGCTCCCCGGGACCACTGGTCCCTTCATTAGTGACGTATTTTCATCATCAGTTT
AGAGAGTTCGGCATGCTTACAGGCAGTTATTGTTCTAGGTGTTAGCTTTCTGGGTGTACGGAGCAGCTCTAAGCC
GGCAACATGGCCCGGTTGCCCTTGCGATCAAAGAGAAGAGGGCTGGGCGCTCCATGATTTAGCCTGAGGCTCTTC
AAACATCCATTCTGCTTCCACGCATGGCTTCTGCCATTGGTTCTCTTCCCCCAGCACCCCTGAAACGACAGAAACA
AGCAATCCGATTCCAGAAAATTTCGGAGGCAAATGGAGGCGCCTGGTGCCCCGCCAGGACCCCTGACGTGGGAAGC
CATGGAGCAGATACGGTATTTACATGAGGAATTTCCAGAGTCCTGGTCAGTTCCCAGGTTGGCTGAAGGCTTTGA
TGTCAGCACTGATGTGATCCGAAGAGTTTTTAAAAAGCAAGTTTTTACCCACATTGGAGCAGAAGCTGAAGCAGGA
TCAAAAAGTCCTTAAGAAAGCTGGGCTTGCCCACTCGCTGCAGCACCTCCGGGGCTCTGGAAATACCTCAAAGCT
GCTCCCTGCAGGCCACTCTGTATCAGGCTCTTTGCTTATGCCAGGGCATGAAGCCTCATCTAAAGACCCAAATCA
CAGCACAGCTTTGAAAGTGATAGAGTCAGACACTCACAGGACAAATACACCAAGGAGAAGGAAGGGAAGAAATAA
AGAAATCCAGGACCTGGAGGAGAGCTTTGTGCCTGTTGCTGCACCCCTAGGTATCCAAGAGAGCTGCAGAAGTA
CTCCAGTGATTCTGAGAGCCCCAGAGGAAGTGGCAGTGGTGCGTTGCCAAGTGGTCAGAAGCTGGAGGAGTTGAA
GGCAGAGGAGCCAGATAACTTCAGCAGCAAAGTAGTGCAGAGGGGCCGAGAGTTCTTTGACAGCAACGGGAAGT
CCTGTACAGAATTTGAGTTCGGGGCTTGCGTTATGGAGATGCCTCGTGAAACACAGCTGGGCAAGTATTAATGTAT
ATGGAACAGCCTGGATTTCTGCATATGGATAAGCCACCTTGAATAGGAAGAGGTGTTGAGCCTGGACTGTGGGA
GGAAAGAGCTGCGTGGATAGATTCAAACCTTCTGTGGTAGTGCTCCAGTCTGACCTCTGTAGACCTTCAGTACT
CACTCTTCTTGCTTAGGCTCTCTGTGTGTTGAAAGCCATCCCGTGTTGCATGTGTTGTTACAATTTTCTGTGATA
CTTGCAATTTATGTTTGAGAAGAAGTGAAGGTTTGCTTCTGACCTCATTTCTTCTTGATCAGTGAACACTAA
CATTTTGGGGACAACCTTAGTCAATTGGTTTTCTTACAACAAAATAAAGTAAATGTAGCAAAAAAAAAAAAAA
AAAA

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FIGURE 4303

MEAPGAPPRTLTWEAMEQIRYLHEEFPEWSVPRLAEGFDVSTDVIRRVLKSFLPTLEQKLKQDQKVLKKAGLA
HSLQHLRGSGNTSKLLPAGHSVSGSLLMPGHEASSKDPNHSTALKVIESDTHRTNTPRRRKGRNKEIQDLEESFV
PVAAPLGHPRELQKYSSDSESPRGTGSGALPSGQKLEELKAEEDNFSSKVQRGREFFDSNGNFLYRI

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FIGURE 4304

CTGAAGGCTTTGATGTCAGCACTGATGTGATCCGAAGAGTTTTACAGGCTCTTTGCTTATGCCAGGGCATGAAGC
CTCATCTAAAGACCCAAATCACAGCACAGCTTTGAAAGTGATAGAGTCAGACACTCACAGGAGAAATACACCAAG
GAGAAGGAAGGGAAGAAATAAAGAAATCCAGGACCTGGAGGAGAGCTTTGTGCCTGTTGCTGCACCCCTAGGTCA
TCCAAGAGAGCTGCAGAAGTACTCCAGTGATTCTGAGAGCCCCAGAGGAACTGGCAGTGGTGCCTTGCCAAGTGG
TCAGAAGCTGGAGGAGTTGAAGGCAGAGGAGCCAGATAACTTCAGCAGCAAAGTAGTGCAGAGGGGCCGAGAGTT
CTTTGACAGCAACGGGAACCTTCCTGTACAGAATTTGAGTCGGGGCTTGGCTTATGGAGATGCCTCGTGAAACACA
GCTGGGCAAGTATTAATGTATATGGAACAGCCTGGATTTCTGCATATGGATAAGCCACCTTGGAATAGGAAGAGG
TGTTGAGCCTGGACTGTGGGAGGAAAGAGCTGCGTGGATAGATTCAAACCTTCCTGTGGTAGTGCTCCCAGTCTGA
CCTCTGTAGACCTTCAGTACTCACTCTTCTTGCTTAGGCTCTCTGTGTGTTGAAAGCCATCCCGTGTTGCATGT

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FIGURE 4305

TCTCCCGAATTTCGGCACGAGGCGGGCGTCTCGAGGCGAGTTGGCGGAGCTGTGCGCGCGGCGGGGCGATGGGGGGC
TCGGGCAGTCGCCTGTCCAAGGAGCTGCTGGCCGAGTACCAGGACTTGACGTTCTTGACGAAGCAGGAGATCCTC
CTAGCCACAGGCGGTTTTGTGAGCTGCTTCCCCAGGAGCAGCGGACCGTGGAGTCGTCACTTCGGGCACAAGTG
CCCTTCGAGCAGATTCTCAGCCTTCCAGAGCTCAAGGCCAACCCTTCAAGGAGCGAATCTGCAGGGTCTTCTCC
ACATCCCCAGCCAAAGACAGCCTTAGCTTTGAGGACTTCTGGATCTCCTCAGTGTGTTTCAGTGACACAGCCACG
CCAGACATCAAGTCCCATTATGCCTTCCGCATCTTTGACTTTGATGATGACGGAACCTTGAACAGAGAAGACCTG
AGCCGGCTGGTGAAGTGCCTCACGGGAGAGGGCGAGGACACACGGCTTAGTGCGTCTGAGATGAAGCAGCTCATC
GACAACATCCTGGAGGAGTCTGACATTGACAGGGATGGAACCATCAACCTCTCTGAGTTCCAGCACGTATCTCC
CGTTCTCCAGACTTTGCCAGCTCCTTTAAGATTGTCTGTGACAGCAGCCCCAGCGTGTGTCCTGGCACCCCTGTC
CAAGAACCTTTCTACTGCTGAGCTGTGGCCAAGGTCAAGCCTGTGTTGCCAGTGCGGGCCAAGCTGGCCCAGCCT
GGAGCTGGCGCTGTGCAGCCTCACCCCGGGCAGGGGCGGCCCTCGTTGTGAGGGCCTCTCCTCACTGCTGTTGTC
ATTGCTCCGTTTGTGTTTGTACTAATCAGTAATAAAGGTTTAGAAGTTTGACCCTAAAAAAAAAAAAAAAAAAAA
AAAAA

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FIGURE 4306

MGGSGSRLSKELLA EYQDLTFLTKQEILLAHRRFCCELLPQEQR TVESSLRAQVPFEQILSLPELKANPFKERICR
VFSTSPAKDSLSFEDFLDLLSVFSDTATPD IKSHYAFRIFDFDDDGTLNREDLSRLVNCLTGEGEDTRLSASEMK
QLIDNILEESDIDRDGTINLSEFQHVISRSPDFASSFKIVL

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FIGURE 4307A

GCTCTGCCCCAAGCCGAGGCTGCGGGGCCGGCGCCGGCGGGAGGACTGCGGTGCCCGCGGAGGGGCTGAGTTTGC
CAGGGCCCACTTGACCCTGTTTCCACCTCCCGCCCCCAGGTCCGGAGGCGGGGGCCCCCGGGGCGACTCGGGG
GCGGACCGCGGGGCGGAGCTGCCGCCGTGAGTCCGGCCGAGCCACCTGAGCCCGAGCCGCGGGACACCGTGCCT
CCTGCTCTCCGAATGCTGCGCACC CGATGGGCCTGAGGAGCTGGCTCGCCGCCCATGGGGCGCGCTGCCGCCT
CGGCCACCGCTGCTGCTCCTGCTGCTGCTGCTCCTGCTGCAGCCGCCGCCTCCGACCTGGGGCGCTCAGCCCC
CGGATCAGCCTGCCTCTGGGCTCTGAAGAGCGGCCATTTCCTCAGATTGGAAGCTGAACACATCTCCAACACACA
GCCCTTCTGCTGAGCAGGGATGGCAGGACCCTGTACGTGGGTGCTCGAGAGGCCCTCTTTGCACTCAGTAGCAAC
CTCAGCTTTCCTGCCAGGCGGGGAGTACCAGGAGCTGCTTTGGGGTGCGAGACGCAGAGAAGAAACAGCAGTGCAGC
TTCAAGGGCAAGGACCCACAGCGCGACTGTCAAACTACATCAAGATCCTCCTGCCGCTCAGCGGCAGTCACCTG
TTCACCTGTGGCACAGCAGCCTTCAGCCCCATGTGTACCTACATCAACATGGAGAATTACCCCTGGCAAGGGAC
GAGAAGGGGAATGTCCTCCTGGAAGATGGCAAGGGCCGTTGTCCCTTCGACCCGAATTTCAAGTCCACTGCCCTG
GTGGTTGATGGCGAGCTCTACACTGGAACAGTCAGCAGCTTCCAAGGGAAATGACCCGGCCATCTCGCGGAGCCAA
AGCCTTCGCCCCACCAAGACCAGAGCTCCCTCAACTGGCTGCAAGACCCAGCTTTTGTGGCCTCAGCCTACATT
CCTGAGAGCCTGGGCAGCTTGCAAGGCGATGATGACAAGATCTACTTTTTCTTCAGCGAGACTGGCCAGGAATTT
GAGTTCTTTGAGAACCATTGTGTCCCGCATTTGCCGCATCTGCAAGGGCGATGAGGGTGAGAGCGGGTGCTA
CAGCAGCGCTGGACCTCCTTCTCAAGGCCAGCTGCTGTGCTCAGGGCCGACGATGGCTTCCCCCTCAACGTG
CTGCAGGATGTCTTACGCTGAGCCCCAGCCCCAGGACTGGCGTGACACCCCTTTCTATGGGGTCTTCACTTCC
CAGTGGCACAGGGGAACACAGAAGGCTCTGCCGTCTGTGCTTCACAATGAAGGATGTGCAGAGAGTCTTCAGC
GGCCTCTACAAGGAGGTGAACCGTGAGACACAGCAGATGGTACACCGTGACCCACCCGTGCCACACCCCCGGCCT
GGAGCGTGATCACCAACAGTGCCCGGGAAAGGAAGATCAACTCATCCCTGCAGCTCCAGACCCGCTGCTGAAC
TTCTCAAGGACCACTTCTGATGGACGGGCAGGTCCGAAGCCGCATGCTGCTGCTGCAGCCCCAGGCTCGCTAC
CAGCGCGTGGCTGTACACCGCGTCCCTGGCCTGCACCACACCTACGATGTCCCTCTTCTGGGCACTGGTGACGGC
CGGCTCCACAAGGCAGTGAGCGTGGGCCCGGGGTGCACATCATTGAGGAGCTGCAGATCTTCTCATCGGGACAG
CCCCTGCAGAATCTGCTCCTGGACACCCACAGGGGGCTGCTGTATGCGGCCTCACACTCGGGCGTAGTCCAGGTG
CCCATGGCCAACTGCAGCCTGTACAGGAGCTGTGGGGACTGCCTCCTCGCCCGGGACCCCTACTGTGCTTGGAGC
GGCTCCAGCTGCAAGCACGTGAGCCTTACCAGCCTCAGCTGGCCACCAGGCCGTGGATCCAGGACATCGAGGGA
GCCAGCGCCAAGGACCTTTGCAGCGCTCTTCGGTTGTGTCCCCGTCTTTGTACCAACAGGGGAGAAGCCATGT
GAGCAAGTCCAGTTCCAGCCCAACACAGTGAACACTTTGGCCTGCCGCTCCTCTCCAACCTGGCGACCCGACTC
TGGCTACGCAACGGGGCCCCCGTCAATGCCTCGGCCTCCTGCCACGTGCTACCCACTGGGGACCTGCTGCTGGTG
GGCACCCAACAGCTGGGGGAGTTCCAGTGCTGGTCACTAGAGGAGGGCTTCCAGCAGTGGTAGCCAGCTACTGC
CCAGAGGTGGTGGAGGACGGGGTGGCAGACCAACAGATGAGGGTGGCAGTGTACCCGTCAATTATCAGCACATCG
CGTGTGAGTGACACAGCTGGTGGCAAGGCCAGCTGGGGTGCAGACAGGTCTACTGGAAGGAGTTCTTGGTGATG
TGCACGCTCTTTGTGCTGGCCGTGCTGCTCCAGTTTTATTCTTGCTCTACCGGCACCGGAACAGCATGAAAGTC
TTCTGAAGCAGGGGGAATGTGCCAGCGTGACCCCAAGACCTGCCCTGTGGTGCTGCCCCCTGAGACCCGCCCA
CTCAACGGCCTAGGGCCCCCTAGCACCCCGCTCGATACCGAGGGTACCAGTCCCTGTGACAGACCCCCCGGGG
TCCCGAGTCTTCACTGAGTCAGAGAAGAGGCCACTCAGCATCCAAGACAGCTTCGTGGAGGTATCCCCAGTGTGC
CCCCGGCCCCGGGTCCGCCTTGGCTCGGAGATCCGTGACTCTGTGGTGTGAGAGCTGACTTCCAGAGGACGCTGC
CCTGGCTTCAAGGGGCTGTGAATGCTCGGAGAGGGTCAACTGGACCTCCCCCTCCGCTCTGCTCTTCGTGGAACAG
ACCGTGGTGCCCGGCCCTTGGGAGCCTTGGGGCCAGCTGGCCTGCTGCTCTCCAGTCAAGTAGCGAAGCTCCTAC
CACCCAGACACCCAAACAGCCGTGGCCCCAGAGGTCTTGCCCAAATATGGGGGCCTGCCTAGGTTGGTGGAACAG
TGCTCCTTATGTAACTGAGCCCTTTGTTTAAAAACAATTCCAAATGTGAAACTAGAATGAGAGGGAAGAGATA
GCATGGCATGCAGCACACAGGCTGCTCCAGTTTCATGGCCTCCCAGGGGTGCTGGGGATGCATCCAAAGTGGTTG
TCTGAGACAGAGTTGGAAACCCCTACCAACTGGCCTCTTACCTTCCACATTATCCCGCTGCCACCGGCTGCCCT
GTCTCACTGCAGATTACAGGACCAGCTTGGGCTGCGTGCGTTCTGCCTTGCCAGTCAGCCGAGGATGTAGTTGTTG
CTGCCGTGCTCCACACCTCAGGGACCAGAGGGCTAGGTTGGCACTGCGGCCCTCACCAGGTCTGGGCTCGGA
CCCAACTCCTGGACCTTTCCAGCCTGTATCAGGCTGTGGCCACACGAGAGGACAGCGCGAGCTCAGGAGAGATTT
CGTGACAATGTACGCCTTTCCCTCAGAATTACGGGAAGAGACTGTGCCTGCCTTCCCTCCGTTGTTGCGTGAGAA
CCCGTGTGCCCTTCCCACCATATCCACCCCTCGCTCCATCTTTGAACTCAAACACGAGGAACAACTGCACCCCTG

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FIGURE 4307B

GTCCTCTCCCCAGTCCCCAGTTCACCCTCCATCCCTCACCTTCCTCCACTCTAAGGGATATCAACACTGCCCAGC
ACAGGGGCCCTGAATTTATGTGGTTTTTATACATTTTTTAATAAGATGCACTTTATGTCATTTTTTAATAAAGTC
TGAAGAATTACTGTTT

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FIGURE 4308

MLRTAMGLRSWLAAPWGALPPRPPLLLLLLLLLLLLLLQPPPTWALSPRISLPLGSEERPFLRFEAEHISNYTALLL
SRDGRTLYVGAREALFALSSNLSFLPGGEYQELLWGADAEKKQQCSFKGKDPQRDCQNYIKILLPLSGSHLFTCG
TAAFSPMCTYINMENFTLARDEKGNVLLEDGKGRCFPDPNFKSTALVVDGELYTGTVSSFQGNDFPAISRSQSLRP
TKTESSLNWLQDPAFVASAYIPESLGSQGGDDDKIYFFFSETGQEFEFFENTIVSRIARICKGDEGGERVLQQRW
TSFLKAQLLCRPDDGFFPNVLQDVFTLSPSPQDWRDTLFYGVFTSQWHRGTTEGSAVCVFTMKDVQRVFSGLYK
EVNRETQQWYTVTHPVPTPRPGACITNSARERKINSSLQLPDRVLNFKDHFMDGQVRSRMLLLQPQARYQRVA
VHRVPGLHHTYDVLFLGTGDGRLHKAVSVGPRVHIIIEELQIFSSGPVQNLLLDTHRGLLYAASHSGVVQVPMAN
CSLYRSCGDCLLARDPYCAWSGSSCKHVSQYQPLATRPWIQDIEGASAKDLCSASSVSPSFVPTGEKPCEQVQ
FQPNTVNTLACPLLSNLATRLWLRNGAPVNASASCHVLPTGDLLLVGTQQLGEFQCWSLEEGFQQLVASYCPEVV
EDGVADQTDDEGGSVPVVIISTSRVSAPAGGKASWGADRSYWKFEFLVMCTLFVLAVLLPVLFLLYRHRNSMKVFLKQ
GECASVHPKTCPVVLPPETRPLNGLGPPSTPLDHRGYQSLSDSPPGSRVFTSEKRPLSIQDSFVEVSPVCPRP
VRLGSEIRDSVV

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FIGURE 4309A

GGTGATTGTGTTGTTACAGTGCTGCTTGCTGAAGAGGACAAAGCTGAAGATGATGTAGTGTTTTACTTGGTATTT
TTGGGTTCCACCCTCCGTCAGTGTACAACTACTCGGAAGGTCAGTTCTGATACATTGGAGACCATTGCTCCTGGT
CATGATTGTTGTGAAACAGTGAAGGTGCAGCTCTGTGCTTCCAAAGAGGGCCTTCCCGTGTTTGTGGTGGCTGAA
GAAGACTTTTCATTTTCGTCAGGATGAAGCGTATGATGCAGCTCAATTCCTAGCAACCAGTGCTGGAAATCAGCAG
GCTTTGAACTTTACCCGTTTTCTTGACCAGTCAGGACCCCATCTGGGGATGTGAATTCCTTGATAAGAAGTTG
GTGCTGGCATTACAGGCACCTGAAGCTGCCACGGAGTGGAATGTATTGGGGACAGATCAGAGTTTGCATGATGCT
GGCCCGCAGAGACATTGATGCATTTTGCTGTGCGGCTGGGACTGCTGAGGTTGACGTGGTTTCTGTTGCAGAAG
CCAGGTGGCCGCGAGCTCTCAGTATCCACAACCAGGAAGGGCGACGCCTGTGAGCTTGGCCTTGGAGCGAGGCT
ATCACAAGCTGCACCAGCTTCTAACCGAGGAGAATGCTGGAGAACCAGACTCCTGGAGCAGTTTATCCTATGAAA
TACCGTATGGAGACTGTTCTGTGAGGCATCATCGAGAGTTGGACATCTATACATTAACTCTGAGTCTGATTAC
ATCATGAACACCCATTTTCTGGAGACGGTTGCACTGGACCAATTTTTAACTTATGAACATCCAACAGCAACTAA
TGAAACAAACCTCAAGCAGATGGACAGTCTTATGCCCTTAATGATGACAGCACAGGATCCTTCCAGTGCCCCAG
AGACAGATGGCCAGTTTCTTCCCTGTGCACCGGAGGCCACGGACCCTCAGCGACTTTCTTCTTGAAGAGACTG
AGAGCACTCAGTGCTGCCAGGGAGCCCTGTTGCACAGACTGAAAGTCCCTGTGATTTGTCAAGCATAGTTGAGG
AGGAGAATACAGACCGTTCTGTAGGAAGAAAAATAAAGGCGTGGAAGAAAAGGGGAAGAGGTGGAGCCAGCAC
CTATTGTGGACTCTGGAAGTGTATCTGATCAAGACAGCTGCCTTCAGAGCTTGCCTGATTGTGGAGTAAAGGGCA
CGGAAGGCCTTTCTGCTGTGGAACAGAAATGAAGAACTGGAACAAAATCTTCTGGAATGCCACAGACCAGG
AGTCCCTGAGCAGTGAGATGCTGTGCTTCAGAGAGACTTGGTCATGGAGCCAGGCACAGCCAGTATTCTCTGT
GAGGTGAAGTGGGAGGCATTTCAACAACAAATGTAGTACCCAGACACTGCAGGGGAAATGGAACATGGGCTCA
TGAACCCAGATGCCACTGTTTGAAGAATGTGCTTCAGGGAGGGGAAAGTACAAAGGAAAGATTTGAGAAGTCTA
ATATTGGCACAGCTGGAGCCTCTGACGTGCACGTCAAGTAAGCCTGTGGATAAAATCAGTGTTCAAACTGTG
CCCCTGCTGCCAGTTCCCTGGATGGTAACAAACCTGCTGAGTCTTCACTTGCATTTAGTAATGAAGAAACCTCCA
CTGAAAAAACAGCAGAAACGGAACTTCACGAAGTCGTGAGGAGAGTGCTGATGCTCCAGTAGATCAGAATTCTG
TGGTGATTCCAGCTGCTGCAAAAGACAAGATTTAGATGGATTAGAACCTTATACTCTCTTAGCAGCAGGCATAG
GTGAGGCAATGTCACCCTCAGATTTAGCCCTTCTTGGGCTGGAAGAAGATGTAATGCCACACCAGAAGTCAAGAA
CAAATTCATCTCATGCTCAAAAGCCAAAAGGGCAAATCCTCACCCATTTGTTCTACAAGTGGAGACGATAAACTTT
GTGCAGACTCTGCATGTCAACAGAACACAGTGAAGTCTAGTGGCGATTTGGTTGCAAACTGTGTGATAACATAG
TTAGCGAGTCCGAAAGCACCACAGCAAGGCAACCCAGCTCACAAGATCCACCCGATGCCCTCCACTGTGAAGACC
CACAGGCTCATAAGTCACTCTGACCCTGTAAGGGATACCCAGGAACGTGCGGATTTTTGTCTTTTCAAAGTGG
TGGATAACAAAGGCCAACGAAAAGATGTGAACTAGATAAACCTTTAACAATATGCTTGAGGTGGTTTTACATC
CACATCCAGTTGTCCTAAAATGGAGAAAGAACTGGTGCCAGACCAGGCAGTAATATCAGACAGTACTTTCTCTC
TGGCAAACAGTCCAGGCAGTGAATCAGTAACCAAGGATGACGCACTTTCTTTTGTCCCCTCCCAGAAAGAAAAGG
GAACAGCAACTCCTGAACTACATACAGCTACAGATTATAGAGATGGCCAGATGGAAATTCGAATGAGCCTGATA
CGCGGCCACTAGAAGACAGGGCAGTAGGCCTGTCCACATCCTCCACTGCTGCAGAGCTTACAGACGGGATGGGGA
ATACCAGTCTCACAGGACTTGGTGGAGAGCATGAGGGTCCCGCCCTCCAGCAATCCAGAAAGCTCTGAATATCA
AGGGGAACACTGACTCTTCCCTGCAAAGTGTGGTAAGGCCACTTTGGCTTTAGATTAGTTTGAAGTGAAGAAG
GAAAACCTTCTGGTGGTTTTAGAAAGCTCTGCAGCTCAGGAACAAGATAAGGATAAAGCGGTGACCTGTTCTCTA
TTAAGGAAAATGCTCTCTCTTCAAGGAACCTTGCAAGGAAGAGCAGAGAACACCACCTCCTGGACAAGATACTCAAC
AATTTTCATGAAAAATCAATCTCAGCTGACTGTGCCAAGGACAAAGCACTTCAGCTAAGTAATTCACCGGTGCAT
CCTCTGCCTTTCTTAAGGCAGAACTGAACATAACAAGGAAGTGGCCCCACAAGTCTCACTGCTGACTCAAGGTG
GGGCTGCCAGAGCCTGGTGCCACCAGGAGCAAGTCTGGCCACAGAGTCAAGGCAGGAAGCCTTGGGGGCAGAGC
ACAACAGCTCCGCTCTGTTGCCATGTCTGTTGCCAGATGGGTCTGATGGGTCCGATGCTCTTAAGTGCAGTCAGC
CTTCTCTCTGGATGTTGGAGTGAAGAACCTCAATCCAGGGAAAACTAGTGCTGTGAGGTGAGTGGAGATG
TGACGGTGGATGTTACAGGGGTTAATGCTCTACAAGGTATGGCTGAGCCCAGAAAGAGAGAATATATCACACAACA
CCCAAGACATCCTGATTCCAAACGTCTGTTGAGCCAAGAGAAGATGCCGTTCTAGGTTTGGCAGTGGCTCTAC
AGGACAAAGCTGTGACTGACCCACAGGGAGTTGGAACCCAGAGATGATACCTCTTGAATGGGAGAAAGGGAAGC
TGGAGGGAGCAGACCACAGCTGTACCATGGGTGACGCTGAGGAAGCCCAAATAGACGATGAAGCACATCCTGTCC
TACTGCAGCCTGTTGCCAAGGAGCTCCCCACAGACATGGAGCTCTCAGCCCATGATGATGGGGCCCCAGCTGGT

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FIGURE 4309B

TGAGGGAAGTCATGCGAGCCCCGCTTCAGGCAGGGAAAGGAGCACTCCCTCTCTACCTTG CATGGTCTCTGCCC
AGGACGCACCTCTGCCTAAGGGGGCAGACTTGATAGAGGAGGCTGCCAGCCGTATAGTGGATGCTGTCATCGAAC
AAGTCAAGGCCGCTGGAGCACTGCTTACTGAGGGGGAGGCCTGTACATGTCACTGTCCAGCCCTGAGTTGGGTC
CTCTCACTAAAGGACTAGAGAGTGCTTTTACAGAAAAAGTGAGTACTTTCCACCTGGGGAGAGCCTACCAATGG
GCAGTACTCCTGAGGAAGCCACGGGGAGCCTTG CAGGATGTTTTGCTGGAAGGGAGGAGCCAGAGAAGATCATTT
TACCTGTCCAGGGGCCTGAGCCAGCAGCAGAAATGCCAGACGTGAAAGCTGAAGATGAAGTGGATTTTAGAGCAA
GTTCAATTTCTGAAGAAGTGGCTGTAGGGAGCATAGCTGCTACACTGAAGATGAAGCAAGGCCCAATGACCCAGG
CGATAAACCGAGAAAACCTGGTGTACAATAGAGCCATGCCCTGATGCAGCATCTCTTCTGGCTTCCAAGCAGAGCC
CAGAATGTGAGAACTTCTGGATGTTGGACTGGGCAGAGAGTGATACCTCAAAACAAGGTGTACTTAAAAGAGAAT
CTGGGAGTGATTCTGACCTCTTCACTCACCCAGTGATGACATGGACAGCATCATCTTCCCAAAGCCAGAGGAAG
AGCATTGGCCCTGTGATATCACCGGATCCAGTTTCATCCACCGATGACACGGCTTCACTGGACCGACATTCTTCTC
ATGGCAGTGATGTGTCTCTCTCCAGATTTTAAAGCCAAACAGGTCAAGAGATCGGCAAAGCCTTGATGGATTCT
ACAGCCATGGGATGGGAGCTGAGGGTCGAGAAAGTGAGAGTGAGCCTGCTGACCCAGGCGACGTGGAGGAGGAGG
AGATGGACAGTATCACTGAAGTGCCTGCAAACTGCTCTGTCTAAGGAGCTCCATGCGCTCTCTTTCTCCCTTCC
GGAGGCACAGCTGGGGGCCTGGGAAAAATGCAGCCAGCGATGCAGAAATGAACCACCGGAGTATGAGCTGGTGCC
CCTCTGGTGTGCAGTACTCTGCTGGCCTGAGTGCTGACTTTAATTACAGAAGTTTCACTCTAGAAGGCTTGACAG
GAGGAGCTGGTGTGCGAAACAAGCCATCCTCATCTCTAGAAGTAAGCTCTGCAAATGCCGAAGAGCTCAGACACC
CATTCAGTGGTGAGGAACGGGTTGACTCTTTGGTGTCACTTTTCAAGAAGGATCTGGAGTCAGACCAGAGAGAAC
ATAGGATGTTTGATCAGCAGATATGTCACAGATCTAAGCAGCAGGGATTTAATTACTGTACATCAGCCATTTCT
CTCCATTGACAAAATCCATCTCATTAAATGACAATCAGCCATCCTGGATTGGACAATTCACGGCCCTTCCACAGTA
CCTTCCACAATACCAGTGCTAATCTGACTGAGAGTATAACAGAAGAGAACTATAATTTCTGCCACATAGCCCCCT
CCAAGAAAGATTCTGAATGGAAGAGTGGAACAAAAGTCAGTCGTACATTCACTACATCAAGAATAAAATGTCTA
GCAGCAAGAAGAGCGAAAAGGAAAAAGATAAGATTAAAGGAGAAGGAGAAAGATTCTAAAGACAAGGAGA
AAGATAAGAAGACTGTCAACGGGCACACTTTCAGTTCCATTCTCTGTTGTGGGTCCCATCAGCTGTAGCCAGTGTA
TGAAGCCCTTACCAACAAAGATGCCTATACTTGTGCAAATTCAGTGCTTTTGTCCACAAAGGCTGCCGAGAAA
GTCTAGCCTCCTGTGCAAAGGTCAAATGAAGCAGCCCCAAAGGGAGCCTTCAGGCACATGACACATCATCACTGC
CCACGGTCATTATGAGAAACAAGCCCTCAGACCCAAAGGAGCGTCTCGCTCTCCAAAGTGTCTCCATACAGA
ACATTACTGGAGTTGGCAATGATGAGAACATGTCAAACACCTGGAAATTCCTGTCTCATTCAACAGACTCACTAA
ATAAAATCAGCAAGGTCAATGAGTCAACAGAATCACTTACTGATGAGGGAGTAGGTACAGACATGAATGAAGGAC
AACTACTGGGAGACTTTGAGATTGAGTCCAAACAGCTGGAAGCAGAGTCTTGAGTTCGGATAATAGACAGCAAGT
TTCTAAAACAGCAAAAGAAAGATGTGGTCAAACGGCAAGAAGTAATATATGAGTTGATGCAGACAGAGTTTCATC
ATGTCCGCACCTCTCAAGATCATGAGTGGTGTGTACAGCCAGGGGATGATGGCGGATCTGCTTTTTTGAGCAGCAGA
TGGTAGAAAAGCTGTTCCCTGTTTGGATGAGCTGATCAGTATCCATAGCCAATTCTTCCAGAGGATTCTGGAGC
GGAAGAAGGAGTCTCTGGTGGATAAAAGTGAAAAGAACTTTCTCATCAAGAGGATAGGGGATGTGCTTGTAATC
AGTTTTTCAGGTGAGAAATGCAGAACGTTTAAAGAAGACATATGGCAAGTTTTGTGGGCAACATAACAGTCTGTAA
ACTACTTCAAAGACCTTTATGCCAAGGATAAGCGTTTTCAAGCCTTTGTAAAGAAGAAGATGAGCAGTTTCAAGTTG
TTAGAAGGCTTGGAATTCAGAGTGATATTGCTTGTAATCAGCGGATTACCAAGTACCCAGTTTTATTCCAAA
GAATATTGCAGTGTACCAAAGACAATGAAGTGAGCAGGAAGATCTAGCACAGTCCTTGAGCCTGGTGAAGGATG
TGATTGGAGCTGTAGACAGCAAAGTGGAAGTTATGAAAAGAAAGTGCGTCTCAATGAGATTTATACAAAGACAG
ATAGCAAGTCAATCATGAGGATGAAGAGTGGTCAGATGTTTGCCAAGGAAGATTTGAAACGGAAGAAGCTTGAC
GTGATGGGAGTGTGTTTCTGAAGAATGCAGCAGGAAGGTTGAAAGAGGTTCAAGCAGTTCTTCTCACTGACATTT
TAGTTTTCTTCAAAGAAAAAGACCAGAAGTACATCTTGCATCATTGGACCAGAAGTCAACAGTGATCTCTTTAA
AGAAGCTGATTGTGAGAGAAGTGGCACATGAGGAGAAAGGTTTATTCTGATCAGCATGGGGATGACAGATCCAG
AGATGGTAGAAGTCCATGCCAGCTCCAAAGAGGAACGAAACAGCTGGATTGAGATCATTAGGACACAATCAACA
CCCTGAACAGAGATGAAGATGAAGGAATTCCTAGTGAGAATGAGGAAGAAAAGAAAATGTTGGACACCAGAGCCC
GAGAATTAAGAACAACCTTACCAGAAGGACCAAAAAATCCTACTCTTGTGGAAAGAGAAGGAGATGATTTTCC
GGACATGGCTGAGTGCAGCACCCCTCTCCAGAGGATTGCTCCCCAACACATAGCCCTAGAGTTCTCTTCCGCT

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FIGURE 4309C

CCAACACAGAAGAGGCTCTCAAAGGAGGACCTTTAATGAAAAGTGCAATAAATGAGGTGGAGATCCTTCAGGGTT
TGGTGAGTGGAATCTGGGAGGCACACTTGGGCCGACTGTCAGCAGCCCCATTGAGCAAGATGTGGTCGGTCCCG
TTTCCCTGCCCGGAGAGCAGAGACCTTTGGAGGATTTGACAGCCATCAGATGAATGCTTCAAAAGGAGGCGAGA
AGGAAGAGGGAGATGATGGCCAAGATCTTAGGAGAACGGAATCAGATAGTGGCCTAAAAAAGGGTGGAATGCTA
ACCTGGTATTTATGCTTAAAAGAAACAGTGAGCAGGTTGTCCAGAGCGTTGTTTCATCTCTACGAGCTCCTCAGCG
CTCTGCAGGGTGTGGTGTCTGCAGCAGGACAGCTACATTGAGGACCAGAAACTGGTGCTGAGCGAGAGGGCGCTCA
CTCGCAGCTTGTCCCGCCCGAGCTCCCTCATTGAGCAGGAGAAGCAGCGCAGCCTGGAGAAGCAGCGCCAGGACC
TGGCCAACCTGCAGAAGCAGCAGGCCCCAGTACCTCGAGGAGAAGCGCAGGCGCGAGCGTGAGTGGGAAGCTCGTG
AGAGGGAGCTGCGGGAGCGGGAGGCCCTCCTGGCCCAGCGCGAGGAGGAGGTGCAGCAGGGGCAGCAGGACCTGG
AAAAAGGAGCGGGAGGAGCTCCAGCAGAAGAAGGGCACATACCAGTATGACCTGGAGCGACTGCGTGCTGCCCAGA
AACAGCTTGAGAGGGGAACAGGAGCAGCTGCGCCGGGAGGCAGAGCGGCTCAGCCAGCGGCAGACAGAACGGGACC
TGTGTCAAGTTTCCCATCCACATACCAAGCTGATGAGGATCCCATCGTTCTTCCCCAGTCTTGAGGAGCCCCCT
CGCCATCTGCACCTTCCATAGCCAAATCAGGGTCATTGGACTCAGAACTTTTCAGTGTCCTCCAAAAAGGAACAGCA
TCTCTCGGACACACAAAGATAAGGGGCCCTTTTACATACTGAGTTCAACCAGCCAGACAAACAAAGGACCAGAAG
GGCAGAGCCAGGCCCTGCGTCCACCTCTGCCTCTACCCGCTGTTTGGGTAAACAAAGCCAAAGGAAAAGAAGG
AGAAAAAAGAAAGAACAAAACAGCCGCTCTCAGCCCGGTGATGGTCCCGCGTCAGAAGTATCAGCAGAGGGTG
AAGAGATCTTCTGCTGACCTCTTCTCTCTGCTGAGGCAGCTGCCTCCTGATCCTGGCCAGCCACCTCTCCTG
CTGTCCCCGCGTGCACAAGTCTCTTACACTGGACGCCACTGCTCCTCAGCGTCCAGTCTCCTGGGCGGCCCA
GGTCTGGACAATAAGCAACAGATGATATTGAGTGTCGGGTGGGGAAGGAGGCCAGACTCTGCTTCGGCCATGA
TTTGTGACTGCCCAGGACTCTCAGGTTGGGCTGGCCCTACTCAGGATTACACTGAAAGTAATGGCCTCGTAAGTA
CAGGTGATGGTTTTGGACACGTCAGGAATTCCTAAAGGCTGAAAGAGTGTATCCAAGTAAGGTCTGAACCTCCGA
ATGCCTTTTATTTGGGGGAACACAAAACCAAACAGCAGATGTTTTGGACTTGATCTGTGTACGTACATGGGGACC
TGTCTGCATATACACACGGGGAATGCCAGAAGAAGGCCAGTCTGCACCAGGCGTCTGGTCAACTTAGCACAAGG
GCAGTGCTTGACGGACCCGGAGCCCCCGCATATCAGCAGTTACCCAGTACTCCTCAGAGACTGGTTTCCCTCT
AAACCCATCCCGGGCACATACCACCCGTGTTTTGCATGTATTTCTCATTTTATTTTAGGGATGACAAACATTTGT
GAAACAGTGAGAGAAGGCTTGATGTGTATAAAAGACGTGATGTGCACCACCTCGATCTCGGTGTTTCAGGCACT
AAAGCAACAAAACAACCCATAGTATCTCATTCTGTCTATCAGATCCAGAAGAAATATCCTGGTTTTCCAGCATGTT
TACCCACATGTTTTGGCCATGGATAAAGTGAAGAGGCCTACTCACCATTATCCCTGCAGCGTGACACCTTTTGAT
TGTCCTGACCACTCAGAAGGGGCCACGGCCTCCTGGCTGTGTTTCTGAGCCCCGTCGTGCCTCTCCAGACAG
CAGCTGTCTGGCCCTTGCTGGGTGAGGGCACACCACTGCCAGGGGTGAGCCTCGCAGCCAGGCCAGGCAGAAGCT
GTGCTCTGAAGCTAGGACAGCTGGCTGAGAAGTGGGTTCAGGCGAAGGGTGAAGCCATGTGTAGCAGTTTCTGCC
AGTGCAGATCTGGAGAGGAGCTGGCCCGGAAGGCGTGGTTGTGAAAGCGCCCTTCTTATGTTAGGAGGCCCTGGC
AAAATTGGATTCTTCAAAAATACATGTAAAGGTCTGTTGTTGAATTGTAATCTGCCCCTGGAAGCAGATACAGA
TGGCTGCCTGCTGCTCGGCTTTGCTTTTGTCTTTTCCACCGTGTTTTTTCATCTTTGTTCACTTGAGGCTTTCCCA
GCTGGTGTGTGCAGGACAGTTTATGGTAATGTTGCCCTCTGAGGCCCGTACACCAGAAGGGAGGCCCTGGAAAA
TTTTGTGCTTCCAACGTGGCCTTCAATTCCTTGCTTTTTTGGCCCTCGGAAGCATGGGGCTTTTGAGCACACTTAA
AAAAAGAAAA

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FIGURE 4310

GAAAAACAAAAGAATCTTTGTTTTACCCCGAAAGAGAGGCGAGGCGAGAAAGTCTTCTTCTGCTTTTTGCATCT
CTAAGAGGCTGAAAAAGAGAATGGAAGTGCTGGGGCATTGTTGGCCAGGGCAGTAATGGATATTTGGAGTTGGCAC
TTCCCTCAGCTAGAGGAGTCTCAGTGTGTCTGAGAAAATGGCAGTCAGCCATCCAGGATTTTAGGAGCAACGCCA
CTGCTCTGTGCCACATCAGAAATCAGGCATGGCCCCAACCTGAAGGAACTTGTAGCTTAATGGGGAAGCACACCA
AGAATAAAAGAGCCTCCAGAACATGTGGTGCTGTGGTCCTGAGACAGCAGGAAATGGCTCTCAGGCCAGAGTTG
CTGGAAGAACCCATGTGGCAGGATCGGTGGGAGGCGATTACAGAGGGAAACGCCCATCCAGCAACTAGGGGAGG
CCGCCA CTCTCTCGTGGATGGATGATATTCTTGCTTGGGGATGTTGAGACAGCTGCACTCTGCATAGTTCCTGA
TTTGCTCTCTACTGCTGATGAAAAACCTCTCTTTCTCTATAGCTGCTGCTTATATTGGAAGGCTTTTGGTTATT
CAGCACACTCACTCCTGAGCTTATTTTCAGTGATATTCTTGTTATTTTCGAAACATGGATGCTTGTGGCAGATGG
AGAGCCTGGGTGTACACAGATCTGCCTGTGTTTTGAAATGCATACCATGTTGCCGTTTGTGTTGATTGATTGATCT
TGGACCACGAAAGAAAATTATACTGACAGCTTCCAGGGTAGGGGGCAGTTGTAGCTTTCTGCAGATGTTGCCAAA
TATATTGGGGGTGGGGAGCAGCAAATGCCATGTGTTGCTTTTTATGACATAAGGAGGGATTCCACCCCATCCCA
ATAAAATCGGTGCTTTGACAAAGGAGGGTTCAGGCAGCTAAGAGAACCAGAGTAGATGATCCTCTTTATCTC
TGGTTTAACCTGTGACTAGGATTCTTGGTGTAAGCTCGGCTTTTCCACTTATCCTCTAACCAGGAACAGGCTTCTA
TAATCTCTTTGCCTTAAAATAATTATCTGCATCCCTGTGTAGAGCAATCTTAAGCAGCTCTCCTTGTTTCTTCAG
GGAATGGGAATTCTTTTCTAAGTCGCCCCATCAAAGGTACTATTGGTTTTTTACAACGCCGGCGTTTGTGTATGT
AGTAAAAGTATTAACAGCATTAAAGGCGATATTTTAAACATGTTTATAGATACTACTTGGGGGAGGGCAGCTAAT
GAAACCTTCAAGCTCTATGCAGTCCACAGACGTGAGCTCTGTAGAGTTCGAGAGGTGGGTAAGTACCCAGCCAG
CACACCCAGTTGAATTCAGCCAGGATTTATTGAGTTGGCATCACAGACGCTGACAGCCTCCAAGTGAACACCTT
CTCTTGAATATGTACAGGTTTCCCATCCACATACCAAGCTGATGAGGATCCCATCGTTCTTCCCCAGTCTGAGG
AGCCCCCTCGCCATCTGCACCTTCCATAGCCAAATCAGGGTCATTGGACTCAGAACTTTAGTGTCCCCAAAAA
GGAACAGCATCTCTCGGACACACAAAGATAAGGGGCCTTTTACATACTGAGTTCAACCAGCCAGACAAACAAAG
GACCAGAAGGGCAGAGCCAGGCCCTGCGTCCACCTCTGCCTCTACCCGCTGTTTGGGTTAACAAAGCCAAAGG
AAAAGAAGG .

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FIGURE 4311A

TCTGTTAAATGTTCCGAAGCCACTGCCAAAACAACTGTGGGAGACCAAGGAGATTTCAGTCCCTGTCAGGACGCCC
TCGATCCTGTGATGTTGGAGGTGGCAATGCTTTTCCACATAATGGTCAAAACCTAGGCCTCTCACCCCTTCTTGGG
GACCTTGAACACTGGAGGGTCAATTGCCAGATCTAACCAACCTCCACTACTCGACACCCCTGCCAGCCTCCCTGGA
CACCACCGACCACCACTTTGGCAGTATGAGTGTGGGAATAGTGTGAACAACATCCCAGCTGCTATGACCCACCT
GGGTATAAGAAGCTCCTCTGGTCTCCAGAGTTCTCGGAGTAACCCCTCCATCCAAGCCACGCTCAATAAGACTGT
GCTTTCTCTTCTTAAATAACCAACCCACAGACATCTGTTCCCAACGCATCTGCTCTTACCCCTTCGCTCCGTCT
GTTTTCCCTTAGCAACCCATCTCTTTCCACCACAAACCTGAGCGGCCCGTCTCGGCGTCGGCAGCCTCCCGTCAG
CCCTCTCACGCTTTCTCTGGCCCTGAAGCACATCAAGGTTTTCAGCAGACAGCTGTCTTCAACCAGCCCACTGGC
CCCATATCTTACCTCCCAGATGGTGTCTCAGACCGAAGCCAACTTTCTTTCTGCCCACAGAAGCTCAAGCCCA
GGTGTGCGCGCCACCCCTTACCCTGCACCCACAGGAGCTCACCCAGCCCTCCTGCAGCAGCCCCGCGCCCTGA
GGCCCTGCCCAGCAGCCCCAGGCAGCCTCCTCACTGCCACAGTCAGACTTTTCAGCTTCTCCCGGCCAGGGCTC
ATCTTTGACCAACTTCTTCCCAGATGTGGGTTTTGACCAGCAGTCCATGAGGCCAGGCCCTGCCTTTCTCAACA
GGTGCTCTGGTGAACAAGGTTCCCGAGAAGTGCAGGACTCTTTTTCATTTGAGACCAAGCCGTTATTCAACTG
CGGGAGTCTCCCGAACACCATCCTGCCAGACTCCAGCACCAGCCTGTTCAAAGACCTCAACAGTGCCTGGCAGG
CCTGCTGAGGTCAGCCTGAACGTGGACACTCCATTTCCACTGGAAGAGGAGCTGCAGATTGAACCCCTGAGCCT
GGACGGACTCAACATGTTAAGTGACTCCAGCATGGGCTGCTGGACCCCTCTGTTGAAGAGACGTTTCGAGCTGA
CAGACTGTGAACAGAAGGCAGTGAACAGAGAAGTGTCTTCTGCAACAGCCAAAATAGAATGGAATAGAATGAA
GCCAGCTGATACCACGGGCTTTCTGTTATCTTGACATAGAAGGAAGCAATGCCACGGCTCCAGGGTTTCAGATGAG
ATCCCATCTCAGACACTGTGGCTTCTCCAGATCACACAGCTTTGTACTGCCTCTCCCGCCTGTGGCCAAAGTCG
TGTTGCAGCAGGCAGGCTGCTTGGAGCTTCCCATGAAGTGAAGGCTCACCTCCACTGCATCTTTTTACTGGCCA
TCCAGTCAGCCGATGTGTAAGAGTAGGAAATACTGTGTCACTGGAGGCTCCGTAGCATTGTGTAGTGTGCTCAG
AACCCTGATCTCCGTCCGCACC GAAGGCGGGCCCGAGTGGGAGGCTCGGCCTGGGGCGGGCCACCGGAGAGG
GCACCTCGATGCCTGCTCTGACCTGACCCAGAGGGCGAGGCCCTCCAGCGGGGGACATTCCCAGGCTGAGTGGAC
CCCACGGCTCTCTCCACGCCTGGATTACGACATGAAGTTTTTACCACAAGCCCGAGGGCAGGCTTGAGTTAGGC
AGACTGAAGGCTAATTTTCATTTCTCCAGCTGGTTTCTGCTGCTTCAGAAAAGTACACCTTTTCTTATGGAC
CAGAGGAAGAGGAAGACCATTTTATCAGTCACTGAAAAGAGTCCCTGGCACTGATGAGCCTGAAGAGAAGTGTG
CTCTCTCTCGGGGCTGGGAAGGAAGACAGGGACTGCAGGTGTCTCATACTCAGTGGCCTCCAGACAACTCCA
GACAAGCACAGACCTCCCCACTAAGAGCAGCCAGAGGGAGCTGGTGAGGCCCTAACCCACCCACCGAGCAACTG
AGCTTCCCCATCCCTCCCCAGAGCTGTGTCTCTGTGGGCTGGGAGTCTAATGTCACCCCTAGACCGTAAGCTC
CTTGAGGGCAGGGACAGTGCCTTATCATTGTTGAACCCGTAGCACCTAACACGTGCGTGGCAGCACAGTCTGTGTG
CTGGAGTGAGTCTGCAGAACCCTGCGTGCAGCGCATGATGAATGAGTGCCTCCGCCATGCCGTAAGGCAGGCTC
ACCTGTAGCTATCCCTTCCCTGCCAGATCTTCTCAGAGCTTTAGCTTTTCTAGCACTCGTGCCTATGGTGAAGC
ATGCACTTTAATATGCTTTTAACACTAGGTGACCAAAATCACAGTGAAGCCGGGCACTGCATTCTCTTGGGCTGT
GCTCCACGCGGGTGGGTGGGAGCTGTCTTCTGAGTACATCCGGAAGGGCTGAGCAGGTGAGTGCCCTGAGCATCC
TGGCTGGGCCCCACCCAGGAAGATCTTCTTCTCAGATCCACGTTTGGCTCTAAATTGCTTCAAGTAGAGATTCA
TTCTTTGAGGTTGAAAAAATAGTTTATAGTAAACGAAGGCCTAATTCATGGAAGCATCATTAGTCATCAATACC
TTCTCATAAAAATAGATGGGCCAGATTTCCACCACCGCTGCCTCCTCTAACTTGGGTGATGCCAGTAGGTTTGAA
GGGGGCAGAGCATTGCAGGGGGAGGGGGGGGTCTAGGCTGTGAGAGGACAGGGTGGAGAGGAGGAGAACCCTGAA
GGAGAGACGGAAGATGCCAGGACCTTTGCTTGGACAGCCATTGCCCTTCCAGGAGACCTTGGAGTGTACTGAGGG
TTGCTGGACTGTTCCACCCAGAGGAGCAAGGCTGTACAATGAGGGTCTGAATCTGGCACACCTGTCCCTTATGTA
AAAGGAGTCGTGGTCACAAGACCCCTGGGCTGGTTAGCCTCTCCCGACCTCATTCCATTTCTATCTTCTGACCTTG
CCTCTCATCTTTAAATAACCCCTCATGGGGTGCCCTCCACCTTCTCTGGAATCCAAGTATTCCTGTTTCACAT
TTGCCCCAAATCTTTGCTGTGGAATTGGGAAATCAAACCAGAGTCTCCTCGCCTGATTTCCAGCTCAGGAAGGG
CCTGCTGGCCTGCCCTGTTCCAGTTACACTTTTCAGATCCCTTTGTGCTCAAGATCTCAGAGGGGGTGGCTTTTT
GTTAAAGAGCCTTCAGTCGCAATGCTACCCAGCACCCCATGTGCCAAAAGAAACCAGCTCCTGTGTCAAAGGGCT
TCCAAACCTGATCTCACTCTCAACAGGCGATGGTGTGATGTTTCAAGAATTGTGTTTTATAAAACAGAGGTCT
CAGCATAGTCACTCTTACATAGTGCCTTACCCATGGGTATCGTCATATCCGGGTCCCAGTTTCAGTTTGTCTGCA
CAGCAGCCACCCTGCCTGGCAACAGAGACCCCAAGACCTACACAGTGAACCCTACTGCCCAAAGGCGTTCTCCA

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FIGURE 4311B

GGTGACTTGTGAAAACAGACCTCCGGGGAAGTGATTTATTGGGGGTGTACACTGGGGGCAATATGGTTTAGCACT
GAATTC AATTTGTCTTAGGTCTATGAGTGAGTCCGATCTTTCTTGTGAAAGGTTTGGGCATCGTACAACCCA
CTCTGCCTAGAAGGTGTGGAGGACTCACCACGGGCAGGGTCGCCCTGGCCCACAGCACGTGAGCCTGCACTCACT
GCGGCCTTTGTAACAAAACCAGTTGTGGTCCTCAGCATTGAAGCAGCTGCATACTTCAGAGTAAACTATTTTTC
ATTATTTAGTTTTGTCACAAGAAATCGACCATTGTACTACTCTCACTTACAGCAGTTAAACAGCATAGAACTAAA
AACCTGCTGTCATTTCATTTTCTTTCTTCTGTATGGTTGTGGGTTT TAGGACATAGGGGGTTAGGAGAAGGGGT
TCTTGATCATGTCATGAATTCCTTTGTCTGTTTCTCTGTTTCATTTCTCTCCGCTGCTGTATATTACCT
GAGCTGGTGTGTATCTTCAAGTCCATATGCGTATTTGCAGACCTTTCCTGTTCCCACTCTTGTGGCTCTTCTG
ATTTATGCACAGATGGTTCCCAGCATGTGTCCAGTGCTTCATGGATGGGACCATCCAGCAACTAATCAGACTTC
CTGCCAGTGTCTTAACCCCCAGGGCACCCGTGTTCAACCATATTTAAAAATTGGAATTTGTATAAAGTTGCTTCCA
AGTTTTATAATGCATCATTTTACATCTTTTGTAAATAAAAGCATCACAATGAGGTTGTCTCTGC

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FIGURE 4312

TTTTTCTGGTAGAAGGCGGGGTTCTCCTCGTACGCTGCGGAGTCTCTGCGGGGTGTAGACCGGAATCCTGCTGAC
GGGCAGAGTGGATCAGGGAGGGAGGGTCGAGACACGGTGGCTGCAGGTCTGAGACAAGGCTGCTCCGAGGTAGTA
GCTCTCTTGCTGAGGTGGCCATTCTCCTGGAGTGTCTGCTGAGGAGCGAGGGCCCATCTGGGGTCTCTGGAA
GTCGGTGCCAGGCCTGAAGGATAGCCCCCTTGCGCTTCCCTGGGCTGCGGCCGGCCTTCTCAGAACGAAGGGC
GTCCTTCCACCCCGCGCGCAGGTGACCGCTGCCATGGCCTTTCCCATCGGCCGGACGCCCTGAGCTGCCTGA
CTTCTCCATGCTGAAGAGGCTGGCTCGAGACCAGCTCATCTATCTGCTGGAGCAGCTTCTGGAAAAAGGATTT
ATTCTTGAGGCAGATCTCATGAGCCCTTTGGATCGAATTGCCAATGTCTCCATCCTGAAGCAACACGAAGTAGA
CAAGCTATACAAGGTGGAGAACAAGCCAGCCCTCAGCTCCAATGAACAATTGTGCTTCTTGGTCAGACCCCGCAT
CAAGAATATGCGATACATTGCCAGTCTTGTCAATGCTGACAAATTGGCTGGCCGAACCTCGCAATACAAAGTGAT
CTTCAGCCCTCAAAGTTCTATGCGTGTGAGATGGTGCTTGAGGAAGAGGGAATCTATGGAGATGTGAGCTGTGA
TGAATGGGCCTTCTCTTTGCTGCCTCTTGATGTGGATCTGCTGAGCATGGAACCTACCAGAATTTTTCAGGGATTA
CTTTCTGGAAGGAGATCAGCGTTGGATCAACACTGTAGCTCAGGCCTTACACCTTCTCAGCACTCTCTATGGACC
CTTTCCAAACTGCTATGGAATTGGCAGGTGCGCCAAGATGGCATATGAATTGTGGAGGAACCTGGAGGAGGAGGA
GGATGGCGAAACCAAGGGCCGAAGGCCAGAGATTGGACATATCTTTCTCTTGACAGAGATGTGGACTTTGTGAC
AGCACTTTGCTCCCAAGTGGTTTATGAGGGCCTAGTAGATGACACCTTCCGCATCAAGTGTGGGAGTGTGCACTT
TGGCCCAGAAGTCACATCCTCTGACAAGAGCCTGAAGGTGCTACTCAATGCCGAGGACAAGGTGTTAATGAGAT
TCGGAACGAGCACTTCTCCAATGTCTTTGGCTTCTTGAGCCAGAAGGCCCGGAACCTGCAGGCCAGTATGATCG
CCGGAGAGGCATGGACATTAAGCAGATGAAGAATTTCTGTGCCAGGAGCTCAAGGGCCTGAAACAGGAGCACCG
CCTGCTGAGTCTCCATATTGGGGCCTGTGAATCCATCATGAAGAAGAAAACCAAGCAGGATTTCCAGGAGCTAAT
CAAGACTGAGCATGCACTGCTAGAGGGGTTCACATCCGGGAGAGCACCAGCTACATTGAGGAACACATAGACCG
GCAGGTGTGCGCTATAGAAAGCCTGCGCCTCATGTGCCTTTTGTCCATCACTGAGAATGGTTTGATCCCCAAGGA
TTACCGATCTCTGAAAACACAGTATCTGCAGAGCTATGGCCCTGAGCACCTGCTAACCTTCTCCAATCTGCGAAG
AGCTGGGCTCCTAACGGAGCAGGCCCGGGGACACCCTCACAGCCGTGGAGAGTAAAGTGAGCAAGCTGGTGAC
CGACAAGGCTGCAGGAAAGATTACTGATGCCTTCAGTTCTCTGGCCAAGAGGAGCAATTTTCGTGCCATCAGCAA
AAAGCTGAATTTGATCCACGTGTGGACGGCGAGTATGATCTGAAAGTGCCCCGAGACATGGCTTACGTCTTCAG
TGGTGCTTATGTGCCCCTGAGCTGCCGAATCATTGAGCAGGTGCTAGAGCGCGGAAGCTGGCAGGGCCTTGATGA
GGTGGTACGGCTGCTCAACTGCAGTGACTTTGCATTACAGATATGACTAAGGAAGACAAGGCTTCCAGTGAGTC
CCTGCGCCTCATCTTGGTGGTGTCTTGGGTGGTTGTACATTCTCTGAGATCTCAGCCCTCCGGTTCCTGGGCAG
AGAGAAAGGCTACAGGTTCAATTTTCTGACGACAGCAGTCACAAACAGCGCTCGCCTTATGGAGGCCATGAGTGA
GGTGAAAGCCTGATGTTTTTCCCGGCCAGTGTGACATCTTCCCTGAACACATTCTCAGTGAGATGCAGGCATC
TGGCACCAGCTGCTATAACCAAGTGTCCACCAACTACCTGCTAAGAGCCGGGAGCATGGAACGTGTTGGGATTT
AGAGAACATTATCTGAGAAAAGAGTTCACTTCTCTGCTCCAGGATATTTCTCTTTTCTGTTTATGAAGTACAACC
CATGCTGCTAAGATGCGAGCAGGAAGAGGCATCCTTTGCTAAATCCTGTTTGAATGTCATTGTAAATAAAGCCTC
TGCTCTCAGATGTAAAAA

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FIGURE 4313

MAFPHRPDAPELPDFSMKRLARDQLIYLLLEQLPGKKDLFIEADLMSPLDRIANVSILKQHEVDKLYKVENKPAL
SSNEQLCFLVRPRIKNMRYIASLVNADKLAGRTRKYKVIFSPQKFYACEMVLEEEGIYGDVSCDEWAFSLLPLDV
DLLSMELPEFFRDYFLEGDQRWINTVAQALHLLSTLYGPFPCYIGRCAKMAYELWRNLEEEEDGETKGRRPEI
GHIFLLDRDVFVTALCSQVVYEGLVDDTFRIKCGSVDFGPEVTSSDKSLKVLNAEDKVFNEIRNEHFSNVFGF
LSQKARNLQAQYDRRRGMDIKQMKNFVSQELKGLKQEHRLLSLHIGACESIMKKKTKQDFQELIKTEHALLEGFN
IRESTSYIEEHIDRQVSPIESLRMLCLLSITENGLIPKDYRSLKTQYLQSYGPEHLLTFSNLRRAGLLTEQAPGD
TLTAVESKVKLVTDKAAGKITDAFSSLAKRSNFRAISKKLNLIPRVDGEYDLKVPRDMAYVFSGAYVPLSCRII
EQVLERRSWQGLDEVVRLNCSDFAFDTMTKEDKASSESLRLILVVFLGGCTFSEISALRFLGREKGYRFIFLTT
AVTNSARLMEAMSEVKA

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FIGURE 4314

GACGGGACGCGACGCCAATCGCGACGAGGCTTCGCCCCGTGGCGCGGTTTGAAATTTTGCGGGGCTCAACGGCTC
GCGGAGCGGCTACGCGGAGTGACATCGCCGGTGTTTGCGGGTGGTTGTTGCTCTCGGGGCCGTGTGGAGTAGGTC
TGGACCTGGACTCACGGCTGCTTGGAGCGTCCGCCATGAGGAGAAGTGAGGTGCTGGCGGAGGAGTCCATAGTAT
GTCTGCAGAAAGCCCTAAATCACCTTCGGGAAATATGGGAGCTAATTGGGATTCCAGAGGACCAGCGGTTACAAA
GAACTGAGGTGGTAAAGAAGCATATCAAGGAACCTCTGGATATGATGATTGCTGAAGAGGAAAGCCTGAAGGAAA
GACTCATCAAAAGCATATCCGTCTGTCAGAAAGAGCTGAACACTCTGTGCAGCGAGTTACATGTTGAGCCATTTC
AGGTCCGTGGCAGCCACAGGGTCTCTGGTGATCTGTCTGGGGCCTGAGACTTAGAAAGCAACGTTGACTTGGGC
CTGCAGATGGAAGGCTTCCTCGTAGGGATGGAGCTAGACGAAGAAGGAGAGACGACCATCTTGCAACTAGAAAAA
GATTTGCGCACCCCAAGTGGAATTGATGCGAAAACAGAAAAAGGAGAGAAAAACAGGAAGTGAAGCTACTTCAAGAG
CAAGATCAAGAAGTGTGCGAAATTCTTTGTATGCCCCACTATGATATTGACAGTGCCTCAGTGCCAGCTTAGAA
GAGCTGAACCAGTTCAGGCAACATGTGACAACTTTGAGGGAAACAAAGACATTTCTTTGCGGGAGGCTAGAGGGC
TAGCCTCTGTGCTGCTGCTTTGCCGTGAGTGACACTGGCTTTCTATGCTGTAGCTGGAAATGCAGAAATCACAAA
ATGAAGCAGTGTGTGAGGGGCTGCGTACTCAAATCCGAGAGCTCTGG

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FIGURE 4315

GGCACGAGGGGCGTTTCTTCCAAGGCTGCCACCAGAAGGACCTGCCGAGAGGGTAGAGGGCATAGGGTCAAGA
TCAAGATAAGGCAGCTCCAGCCCCTGGAAGGCCAGAGACTTGCCAGTGTCCACTAGCGGGCTCTTCGCAAGAAT
CCCCCGGGCCCGCCGAGCCAGGCGGCGGCCGAGAGGGCGCTGCTCGGGCATGGCGGAGGAGCGGCCGGGGG
CCTGGTTTCGGCTTCGGTTTTCTGCGGCTTCGGGCAGGAGCTGGGCTCCGGACGCGGGCGCCAGGTGCACAGCCCCA
GTCCGCTGCGGGCGGGCGTCGACATCTGCCGCGTGAGCGCGAGCTGGAGCTACACCGCTTTCGTGACCCGTGAGC
ATCCCCGCCCCGTCCCCACTTATTCCAGCCGCGCTCCCCAGTCGCCTCCCCGCACCGCTGTGGCCAGTCCAGTT
TGTCTCCCCCGTTCAGGCCGCCAGCCCCACATTCTGGGTTGGTCCCCAATTCGACCCCTTCCCAGGAACACCCCG
CTCCCCCATCCCCGCGCCTCCATTCTGGCCACCTGCTCCAATCCGCCCCGCAGGTGGAGGCCGCTTGGAGCT
GTCGGGCTCAGCCAGCGGCGCGGGGGCGCTGCAAGGACGCGTGGGCCTCGGAGGGGCTCCTCGCGGTGCTGCG
CGCCGGGCGGGGCGGAGGCGTTACTGCAAGTCTGGGCGGCCGAATCGGCGCTGCGTGGGGAGCCATTGTGGGC
CCAGAATGTGGTGCCGAGGCCGAAGGGGAAGACGATCCGGCCGGTGAGGCCAGGCTGGGAGGCTACCCCTGCT
GCCCTGCGCCCGTGCTTACGTGAGCCCGCGGGCGCCCTTACC GGCTCTGGCTCCGGAGCTGCGGGCACGCCA
GCTGGAGCTGGGCGCGAGACCGTGTGCTGGACGCTGCTGGCCAGGTGTTCTCCTGGGGCGGGGCAGGCA
TGGACAGCTGGGCCATGGGACCTGGAGGCAGAGCTGGAGCCACGGCTGTTGGAGGCGTTGCAGGGCCTAGTCAT
GGCTGAGGTGGCCGCGGGGGGCTGGCATTCTGTGTGTGTGAGTGAGACTGGGGATATTTATATCTGGGGCTGGAA
TGAATCAGGGCAGCTGGCCCTGCCACCAGGAACCTGGCAGAGGATGGAGAGACTGTCGCAAGGGAAGCCACAGA
ACTGAATGAAGATGGTTCTCAGGTGAAGAGAACGGGTGGGGCTGAGGATGGAGCCCCCTGCCCCCTTCATAGCTGT
CCAGCCCTTCCCGGCATTACTGGATCTCCCCATGGGCTCAGATGCAGTCAAGGCCAGCTGTGGATCCCGGCACAC
AGCTGTGGTGACACGAACAGGGGAGCTCTACACCTGGGGCTGGGGTAAATATGGACAGCTGGGCCACGAGGACAC
CACCAGCTTGGATCGGCCTCGCCGTGTGGAATACCTTTGTAGATAAGCAACTCCAAGTAAAGGCTGTCACCTGTGG
GCCGTGGAACACCTACGTGTATGCTGTGGAGAAAGGGAAGAGCTGCACATGTGTACGTATATGTATATGCAACACC
TGTGAGACCCCCATTTCAGGTCAAGGAAAACCATTGCCTGCACCCCAAGGGCCCCATATTTGCCCTCCCCATCAC
AGTCCTGCCCTTACCCTCAAGCACGGTCTTAACTTGTCTGCACCTTTAGAAACACCTGGAGAGCATTGAAAAC
CTGCTGCCTAAGGTGAGCATCAATCAAAACAATGAAATCAATGAAACAATGAAACCAGAGCTTCTAGGTGTGTGG
CCTGGATAGTGGTAGATTCAAAGCTCCACCCACCTCATCCCAGGTACATTTGATGTGCAGCTGAGATTGGGGCAC
ATTCCAGGTGATCGTCTTCTGTGAGTCAATTTCCCTGCTTTGTTTGAATTTTACCATTCTTGTATGCAGCCTTAT
ACGACATAGTTGTGTTTGTCTTTTGTGAGTGTAGATAAATGGAATCCTGTGTATGTGCTTTTGTGTCGTTTTGTCA
CTCAGCATTGTATAATCCATCCTTGTGGGTCTGGAGTTCATTTTAAATGCTATATGGTGTCTGTGTATGAA
TAATACCTCAAGTGATACAAAAA

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FIGURE 4316

MAEVAAGGWHSVSVSETGDIYIWGWNESGQLALPTRNLAEDGETVAREATELNEDGSQVKRTGGAEDGAPAPFFIA
VQFPALLDLPMGSDAVKASCSRHTAVVTRTGELYTWGWGKYGQLGHEDTTS�DRPRRVEYFVDKQLQVKAVTC
GPWNTYVYAVEKGKS

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FIGURE 4317

CGCCCCGCGGCCGAGGTGGACGGAGCCTCCCGGCTCGCTGCTCCCGCCGCGGAGCGAGGCTGCCCTTTCTTCGCA
 GCGTGATTTATTTTCTTCTTTTTTTCTGAACTCTTCTTCCAGGGAGAGGCTAGTGGTAACAGGCCGAGCTGGATG
GATGGGTATGGGGAGAGGGGCAGGACGTTCCAGCCCTGGGATTCTGGCCGACCCCTCGCCTTCTTCTCTGCAGCTT
 CCCCAGCCACCTCCCCGTGCAAGATCCTCAAGTGCAACTCTGAGTTCTGGAGCGCCACGTCCGGCAGCCACGC
 CCCAGCCTCAGACGACACCCCCGAGTTCTGTGCAGCCTTGCGCAGCTACGCCCTGTGCACGCGGCGGACGGCCCG
 CACCTGCGGGGGTGACCTGGCCTACCCTCGGCCGTCCATGGCATAGAGGACCTCATGAGCCAGCACAACTGCTC
 CAAGGATGGCCCCACCTCGCAGCCACGCCTGCGCACGCTCCACCGGCCGAGACAGCCAGGAGCGCTCGGACAG
 CCCCAGATCTGCCATTACGAGAAGAGCTTTCACCAAGCACTCGGCCACCCCCAACTACACGCACTGTGGCCTCTT
 CGGGGACCCACACCTCAGGACTTTCACCGACCGTTCCAGACTCGCAAGGTGCAGGGCGCCTGGCCGCTCATCGA
 CAATAATTACCTGAACGTGCAGGTACCAACACGCCTGTGCTGCCCGGCTCAGCGGCCACTGCCACCAGCAAGCT
 CACCATCATCTTCAAGAAGTTCAGGAGTGTGTGGACCAGAAGGTGTACCAGGCTGAGATGGACGAGCTCCCGGC
 CGCCTTCGTGGATGGCTCTAAGAACGGTGGGGACAAGCACGGGGCCAACAGCCTGAAGATCACTGAGAAGGTGTC
 AGGCCAGCACGTGGAGATCCAGGCCAAGTACATCGGCACCACCATCGTGGTGCGCCAGGTGGGCCGCTACCTGAC
 CTTTGCCGTCCGCATGCCAGAGGAAGTGGTCAATGCTGTGGAGGACTGGGACAGCCAGGGTCTCTACCTCTGCCT
 GCGGGGCTGCCCCCTCAACCAGCAGATCGACTTCCAGGCCTTCCACACCAATGCTGAGGGCACCGGTGCCCGCAG
 GCTGGCAGCCGCCAGCCCTGCACCCACAGCCCCGAGACCTTCCCATACGAGACAGCCGTGGCCAAAGTGAAGGA
 GAAGCTGCCGGTGGAGGACCTGTACTACCAGGCCTGCGTCTTCGACCTCCTCACCACGGGCGACGTGAACCTTAC
 ACTGGCCGCTACTACGCGTTGGAGGATGTCAAGATGCTCCACTCCAACAAAGACAAACTGCACCTGTATGAGAG
 GACTCGGGACCTGCCAGGCAGGGCGGCTGCGGGGCTGCCCTGGCCCCCGGCCCTCCTGGGCGCCCTGGTCCC
 GCTCCTGGCCCTGCTCCCTGTGTTCTGCTAGACGCGTAGATGTGGAGGGAGGCGCGGGGCTCCGTCTCTCGGCTT
 CCCCATGTGTGGGCTGGGACCGCCCACGGGGTGCAGATCTCCTGGCGTGTCCACCATGGCCCCGAGAAGCCAG
 GGACCGCCTGCTGCCAAGGGCTCAGGCATGGACCCCTCCCTTCTAGTGACGTGACAAGGTTGTGGTGACTGGT
 GCCGTGATGTTTGACAGTAGAGCTGTGTGAGAGGGAGAGCAGCTCCCCCTCGCCCCGCCCTGCAGTGTGAATGTG
 TGAAACATCCCCCTCAGGCTGAAGCCCCCACCACAGAGACACACTGGGAACCGTCAGAGTCAGCTCCTTCC
 CCCTCGCAATGCACTGAAGGGCCCGGCGACTGCTGCTGCTGATCCGTGGGGCCCCCTGTGCCCGCCACACGCA
 CGCACACACTCTTACACGAGAGCACACTCGATCCCCCTAGGCCAGCGGGGACACCCAGCCACACAGGGAGGCAT
 CTTGGGGCTTGGCCCCAGGCAGGGCAACCCCGGGGCGCTGCTTGGCACCTTAGCAGACTGCTGGAACCTTTTGG
 CCAGTAGGTGCTGCCGCGCTGGTGCCTTCTGGCCTGTGGCCTCCCTGCCCATGTTACCTGGCTGCTGTGGGTAC
 CAGTGACGGTCCCGGTTTTAGGCACCTGCTCAGCTGCCCGTCTCTGGCCTGGGCCCCCTGCCCTTCCACCTGT
 GCTTAGAAAGTCGAAGTGCTTGGTTCTAAATGTCTAAACAGAGAAGAGATCCTTGACTTCTGTCTCTCTCCCTCC
 TGCAGATGCAAGAGCTCCTGGGCAGGGGTGCCGGGCCCCAGGGTGTGGCAGGAGACCCAGTGATGGGGCCAGC
 TGGCCTGCCCTGATCCTCTGCTTCTCTCACAACCCCAAGAGCCCCAGCCCGGTCCATCCAGCTCTGGAGTCT
 GGGGAGAGGAGCAGGGTCTTAGGACTCTCAGCTCTGAGCATCCCTGGCAGGGTCTTCAACCTCTAATCTCTTCCC
 TTAAGCCCTGTGGCCACACAGCCAGGAGAGACTTGCCGCTGGCTCCCGCCTCATTTAGCCCAAGGTGCTCATCC
 AGGGGCCCCAGAACAGTCCCACCTGTGCTGCTATGCCACAGCACAAAGCCAGGCTTCACTCCCAAAAGTGCAGCC
 AGGCCCTGGAGGGTGATCCTGCCAGCAGCCCTACAGCTCCACACCTACCCACCCATCGGCAGCCCCCTCTGCTGT
 TCCCCAGGGACCTCTCATACACTGGCCAGGAGGCTGCAGAACGTGTGTCTCCCCCTCCCTCCAAGAGGTCTGCT
 CCCTCTGCCAGAACCGTGTGTGGGCGGGTGGGAGGGCGCTCGGGGCCCCGGCCCCCTCCCTCTCCCTGCTGGTTTTA
 GTTGGTCCCTATGTTGGAAGTAAAAAGTGAAGCACTTTATTTTGGTTGTGTTGCTCACGTTCGCTTGGAAAGTG
 GGGACCCCTCACTGCGTCCACGTGTCTGCGACCTGTGTGGAGTGTACCCGCTGTACATACTGTAAATTATTTAT
 TAATGGCTAAATGCAAGTAAAGTTTGGTTTTTTTTGTT

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FIGURE 4318

MGMGRGAGRSALGFWPTLAFLLCSFPAATSPCKILKCNSEFWSATSGSHAPASDDTPEFCAALRSYALCTRRTAR
TCRGDLAYHSAVHGIEDLMSQHNCSKDGPTSQPRRLTLPPAGDSQERSDSPEICHYEKSFHKHSATPNYTHCGLF
GDPHLRTFTDRFQTCKVQGAWPLIDNNYLVQVTNTPVLPGSAATATSKLTIIIFKNFQECVDQKVYQAEMDELPA
AFVDGSKNGGDKHGANSLKITEKVSGQHVEIQAKYIGTTIVVRQVGRYLTFAVRMPEEVVNAVEDWDSQGLYLCL
RGCPLNQIDFQAFHTNAEGTGARRLAAASPAPTAPETFPYETAVAKCKEKL PVEDLYYQACVFDLLTTGDVNFT
LAAYYAL EDVKMLHSNKYKLHLYDRTRDLPGRAAAGLPLAPRPLL GALVPLLALLPVFC

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FIGURE 4319

AGCCGGTGCGCCGAGACTAGGGCGCCTCGGGCCAGGGAGCGCGGAGGAGCCATGGCCACCGCTAACGGGGCCGT
GGAAAAACGGGCGACCCGGACAGGAAGCCCGCGGCCCTGCCGCGCCCCATCCGCAACCTGGAGGTCAAGTTCACCAA
GATATTTATCAACAATGAATGGCACGAATCCAAGAGTGGGAAAAAGTTTGCTACATGTAACCCCTTCAACTCGGGA
GCAAAATATGTGAAGTGAAGAAGGAGATAAGCCCCGACGTGGACAAGGCTGTGGAGGCTGCACAGGTTGCCTTCCA
GAGGGGCTCGCCATGGCGCCGGCTGGATGCCCTGAGTCGTGGGCGGCTGCTGCACCAGCTGGCTGACCTGGTGA
GAGGGACCGCGCCACCTTGGCCGCCCTGGAGACGATGGATACAGGGAAGCCATTTCTTCATGCTTTTTTTCATCGA
CCTGGAGGGCTGTATTAGAACCCTCAGATACTTTGCAGGGTGGGCGAGACAAAATCCAGGGCAAGACCATCCCCAC
AGATGACAACGTCGTGTGCTTACCAGGCATGAGCCCATTTGGTGTCTGTGGGGCCATCACTCCATGGAACCTCCC
CCTGCTGATGCTGGTGTGGAAGCTGGCACCCGCCCTCTGCTGTGGGAACACCATGGTCTGAAGCCTGCGGAGCA
GACACCTCTCACCGCCCTTTATCTCGGCTCTCTGATCAAAGAGGCGGGTTCCCTCCAGGAGTGGTGAACATTGT
GCCAGGATTCCGGGCCACAGTGGGAGCAGCAATTTCTTCTCACCTCAGATCAACAAGATCGCCTTACCAGGCTC
CACAGAGGTTGGAAAACTGGTTAAAGAAAGCTGCGTCCCGGAGCAATCTGAAGCGGGTGACGCTGGAGCTGGGGGG
GAAGAACCCTGTCATCGTGTGTGCGGACGCTGACTTGGACTTGGCAGTGGAGTGTGCCATCAGGGAGTGTCTT
CAACCAAGGCCAGTGTGTCACGGCAGCCTCCAGGGTGTTCGTGGAGGAGCAGGTCTACTCTGAGTTTGTACGGCG
GAGCGTGGAGTATGCCAAGAAACGGCCCGTGGGAGACCCCTTCGATGTCAAACAGAACAGGGGCCCTCAGATTGA
TCAAAGCAGTTCGACAAAATCTTAGAGCTGATCGAGAGTGGGAAGAAGGAAGGGGCCAAGCTGGAATGCGGGGG
CTCAGCCATGGAAGACAAGGGGCTCTTCATCAAACCCACTGTCTTCTCAGAAGTCACAGACAACATGCGGATTGC
CAAAGAGGAGATTTTCGGGCCAGTGAACCAATACTGAAGTCAAAGATATCGAAGAAGTGATAAAAAGAGCGAA
TAGCACCGACTATGGACTCACAGCAGCCGTGTTCAAAAAATCTCGACAAAGCCCTGAAGTTGGCTTCTGCCTT
AGAGTCTGGAACGGTCTGGATCAACTGCTACAACGCCCTCTATGCACAGGCTCCATTTGGTGGCTTTAAATGTC
AGGAAATGGCAGAGAACTAGGTGAATACGCTTTGGCCGAATACACAGAAGTGAAGAACTGTCAACCATCAAACCTGG
CGACAAGAACCCTGAAGGAAAGCGGGGCTCCTTCTCAAACATCGGACGGCGGAATGTGGCAGATGAAATGTG
CTGGAGGAAAAAATGACATTTCTGACCTTCCCGGGACACATCTTCTGGAGGCTTTACATCTACTGGAGTTGAA
TGATTGCTGTTTTCTCTACTCTCCTGTTTATTACCAGACTGGGGATGCCTATAGGTTGTCTGTGAAATCGCA
GTCCTGCCTGGGGAGGGAGCTGTTGGCCATTTCTGTGTTTCCCTTTAAACCAGATCCTGGAGACAGTGAGATACT
CAGGGCGTTGTTAACAGGGAGTGGTATTTGAAGTGTCCAGCAGTTCCTTGAAATGCTTTGCCGAATCTGACTCCA
GTAAGAATGTGGGAAAACCCCTGTGTGTTCTGCAAGCAGGGCTCTTGCAACAGCGGTCTCCTCAGGGTGGACCT
GCTTACAGAGCAAGCCACGCCTCTTCCGAGGTGAAGGTGGGACCATTCTTGGGAAAGGATTACAGTAAGGTT
TTTTGGTTTTTTGTTTTTTGTTTTCTGTTTTTAAAAAAGGATTTACAGTGAGAAAAGTTTGGTTAGTGCATAC
CGTGGAAGGGCGCCAGGGTCTTTGTGGATTGCATGTTGACATTGACCGTGAGATTCCGGCTTCAAACCAATACTGC
CTTTGGAATATGACAGAATCAATAGCCCAGAGAGCTTAGTCAAAGACGATATCACGGTCTACCTTAACCAAGGCA
CTTTCTTAAGCAGAAAATATTGTTGAGGTTACCTTTGCTGCTAAAGATCCAATCTTCTAACGCCACAACAGCATA
GCAAATCCTAGGATAATTCACCTCCTCATTTGACAAATCAGAGCTGTAATTCGCTTTAACAAATTACGCATTTCT
ATCACGTTCACTAACAGCTTATGATAAGTCTGTGTAGTCTTCTTTTCTCCAGTTCTGTTACCCAATTTAGATTA
GTAAAGCGTACACAACCTGGAAGACTGCTGTAATAACACAGCCTTGTTATTTTAAAGTCTATTTTGATATTAAT
TTCTGATTAGTTAGTAAATAACACCTGGATTCTATGGAGGACCTCGGTCTTCATCCAAGTGGCCTGAGTATTCA
CTGGCAGGTTTGTAATTTTTCTTTTCTTTGGGGATCCAAATGATGATGTGCAATTTTCATGTTTTAACTTGGG
AAACTGAAAGTGTTCCCATATAGCTTCAAAAACAAAACAAATGTGTTATCCGACGGATACTTTTATGGTTACTA
ACTAGTACTTTCTAATTGGGAAAGTAGTGCTTAAGTTTGCAAATTAAGTTGGGGAGGGCAATAATAAATGAGG
GCCCCGTAACAGAACAGTGTGTGTATAACGAAAACCATGTATAAATGGGCCATCACCTTGTGACAGATATAA
ATTACCACATTTGCCTTCCCTTATCAGCTAACACTTATCACTTATACTACCAATAACTTGTTAAATCAGGATTT
GGCTTCATACACTGAATTTTTCAGTATTTTATCTCAAGTAGATATAGACACTAACCTTGATAGTGATACGTTAGAG
GGTTCTTATTTCTTCCATTGTACGATAATGTCTTTAATAIGAAATGCTACATTATTTATAAATTGGTAGAGTTATTG
TATCTTTTTATAGTTGTAAGTACACAGAGGTGGTATATTTAACTTCTGTAATATACTGTATTTAGAAATGGAAA
TATATATAGTGTAGGTTTCACTTCTTTTAAAGGTTTACCCCTGTGGTGTGGTTTTAAATCTATAGGCCCTGGGAA
TTCCGATCCTAGCTGCAGATCGCATCCACAATGCGAGAATGATAAAATAAATTGATATTTGAGA

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FIGURE 4320

GAATTCGCGGGAGGCCACGGGCTTTCCACAGCGCGGGGGAACGGGAGGCTGCAGGATGGTCAAGCTGACGGCGG
AGCTGATCGAGCAGGCGGCGCAGTACACCAACGCGGTGCGCGACCGGGAGCTGGACCTCCGGGGGTATAAAATTC
CCGTCATTGAAAATCTAGGTGCTACGTTAGACCAGTTTGATGCTATTGATTTTCTGACAATGAGATCAGGAAAC
TGGATGGTTTTCTTTGTTGAGAAGACTGAAAACATTGTTAGTGAACAACAACAGAATATGCCGTATAGGTGAGG
GACTTGATCAGGCTCTGCCCTGTCTGACAGAACTCATTCTACCAATAATAGTCTCGTGGAAGTGGGTGATCTGG
ACCCTCTGGCATCTCTCAAATCGCTGACTTACCTAAGTATCCTAAGAAATCCGGTAACCAATAAGAAGCATTACA
GATTGTATGTGATTTATAAAGTTCCGCAAGTCAGAGTACTGGATTTCAGAAAGTGAAACTAAAAGAGCGTCAGG
AAGCAGAGAAAATGTTCAAGGGCAAACGGGGTGACAGCTTGCAAAGGATATTGCCAGGAGAAACAAAACCTTTTA
ATCCAGGTGCTGGTTTGCCAACTGACAAAAAGAGAGGTGGGCCATCTCCAGGGGATGTAGAAGCAATCAAGAATG
CCATAGCAAATGCTTCAACTCTGGCTGAAGTGGAGAGGCTGAAGGGGTGCTGCAGTCTGGTCAGATCCCTGGCA
GAGAACGCAGATCAGGGCCCACTGATGATGGTGAAGAAGAGATGGAAGAAGACACAGTCACAAACGGGTCCTGAG
CAGTGAGGCAGATGTATAATAATAGGCCCTCTTGGAACAAGTCTTGCTTTTCGAACATGGTATAATAGCCTTGTT
TGTGTTAGCAAAGTGAATCTATCAGCATTGTTGAAATGCTTAAGACTGCTGCTGATAATTTTGTAATATAAGTT
TTGAAATCTAAATGTCAATTTTCTACAAATTATAAAAATAAACTCCACTCTCTATGCTAAAAAAAAAAAAAAGGA
ATTC

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FIGURE 4321

MVKLTAE LIEQAAQYTN AVRDRELDLRGYKIPVIENLGATLDQFDAIDFSDNEIRKLDGFLLRRLKTL LVNNNR
ICRIGGLDQALPCLTELILTNNSLVELGDL DPLASLKS LTYLSILRNPVTNKKHYRLYVIYKVPQVRVLDFQKV
KLKERQEA EKMFKGKRG AQLAKDIARRSKTFNPGAGLPTDKKRGGPSPGDVEAIKNAIANASTLA EEVERLKGLLQ
SGQIPGRERRSGPTDDGEEEMEEDTVTNGS

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FIGURE 4322

GACACTATCCGTGCGGCCAGGCGGAGACCCGGAGGACCGAAGCTTCCGGACGACGAGGAACCGCCCAACATGGCC
TCGGAGAGTGGGAAGCTTTGGGGTGGCCGGTTTGTGGGTGCAGTGGACCCCATCATGGAGAAGTTCAACGCGTCC
ATTGCCTACGACCGGCACCTTTGGGAGGTGGATGTTCAAGGCAGCAAAGCCTACAGCAGGGGCTGGAGAAGGCA
GGGCTCCTCACCAAGGCCGAGATGGACCAGATACTCCATGGCCTAGACAAGGTGGCTGAGGAGTGGGCCAGGGC
ACCTTCAAAGTGAAGTCCAATGATGAGGACATCCACACAGCCAATGAGCGCCGCCTGAAGGAGCTCATTGGTGCA
ACGGCAGGGAAGCTGCACACGGGACGGAGCCGGAATGACCAGGTGGTCACAGACCTCAGGCTGTGGATGCGGCAG
ACCTGCTCCACGCTCTCGGGCCTCCTCTGGGAGCTCATTAGGACCATGGTGGATCGGGCAGAGGCGGAACGTGAT
GTTCTCTTCCCGGGGTACACCCATTTGCAGAGGGGCCAGCCCATCCGCTGGAGCCACTGGATTCTGAGCCACGCC
GTGGCACTGACCCGAGACTCTGAGCGGCTGCTGGAGGTGCGGAAGCGGATCAATGTCTGCCCCCTGGGGAGGTGG
GGCCATTGCAGGCAATCCCCTGGGTGTGGACCAGAGCTGCTCCGAGCAGAACTCAACTTTGGGGCCATCACTCT
CAACAGCATGGATGCCACTAGTGAGCGGGACTTTGTGGCCGAGTTCCTGTTCTGGGCTTCGCTGTGCATGACCCA
TCTCAGCAGGATGGCCGAGGACCTCATCCTCTACTGCACCAAGGAATTCAGCTTCGTGCAGCTCTCAGATGCCTA
CAGCACGGGAAGCAGCCTGATGCCCCAGAAGAAAAACCCCGACAGTTTGGAGCTGATCCGGAGCAAGGCTGGGCG
TGTGTTTGGGCGGTGTGCCGGGCTCCTGATGACCCTCAAGGGACTTCCCAGCACCTACAACAAAGACTTACAGGA
GGACAAGGAAGCTGTGTTTGAAGTGTGAGACACTATGAGTGCCGTGCTCCAGGTGGCCACTGGCGTCATCTCTAC
GCTGCAGATTACCAAGAGAACATGGGACAGGCTCTCAGCCCCGACATGCTGGCCACTGACCTTGCCTATTACCT
GGTCCGCAAAGGGATGCCATTCCGCCAGGCCCACGAGGCCTCCGGGAAAGCTGTGTTTATGGCCGAGACCAAGGG
GGTCGCCCTCAACCAGCTGTCACTGCAGGAGCTGCAGACCATCAGCCCCCTGTTCTCGGGCGACGTGATCTGCGT
GTGGGACTACGGGCACAGTGTGGAGCAGTATGGTGCCCTGGGCGGCACTGCGCGCTCCAGCGTCGACTGGCAGAT
CCGCCAGGTGCGGGCGCTACTGCAGGCACAGCAGGCCTAGGTCTCCACACCTGCCCCCTAATAAAGTGGGCGC
GAG

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FIGURE 4323A

GCACCAGAAGCCAGCAGTGGGGTTGCACACGCGCCTCTTCACGAGGTGGAAACAAGATGGAGGATTTCGGCCTCGG
CCTCGCTGTCTTCTGACGCCGCTACTGGAACCTCCACCTCGACTCCAGCGGCCCGACAGCACGGAAGCAGCTGG
ATAAAGAACAGGTTAGAAAGGCAGTGGACGCTCTCTTGACGCATTGCAAGTCCAGGAAAAACAATTATGGGTTGC
TTTTGAATGAGAATGAAAGTTTATTTTAAATGGTGGTATTATGGAAAATTCCAAGTAAAGAACTGAGGGTCAGAT
TGACCTTGCCTCATAGTATTCGATCAGATTGAGAAGATATCTGTTTATTTACGAAGGATGAACCCAATTCAACTC
CTGAAAAGACAGAACAGTTTTATAGAAAGCTTTTAAACAAGCATGGAATTAACCGTTTTCTCAGATTATCTCCC
TCCAAACTCTAAAGAAGGAATATAAATCCTATGAAGCCAAGCTCCGCTTCTGAGCAGTTTTGATTTCTTCCTTA
CTGATGCCAGAATTAGGCGGCTCTTACCCTCACTCATTGGGAGACATTTCTATCAAAGAAAGAAAGTTCCAGTAT
CTGTAAACCTTCTGTCCAAGAAATTTATCAAGAGAGATCAATGACTGTATAGGTGGAACAGTCTTAAACATTTCTA
AAAGTGGTTCTTGACAGTGCTATACGTATTGGTCACGTTGGAATGCAATTGAGCACATCATTGAAAACATTGTTG
CTGTACCAAAGGACTTTTCAGAAAAATTGCCAGAGAAGTGGGAGAGCGTGAAACTCCTGTTTGTGAAAACCTGAGA
AATCGGCTGCACTTCCCATCTTTTCTCGTTTGTGAGCAATTGGGATGAAGCCACCAAAGATCTTGTCTTAATA
AGAAGAAAAAAGAGGCAAGGAGAAAAACGAAGAGAAAGAAATTTTGA AAAACAAAAGGAGAGGAAGAAGAAGAGGC
AGCAGGCTAGGAAGACTGCATCAGTTCTTAGTAAAGATGATGTGGCACCTGAAAGTGGTGATACTACAGTGAAGA
AACCTGAATCAAAGAAGGAACAGACCCAGAGCATGGGAAGAAAAACGTTGGCAGAGGAAAAGCCCAAGTTAAAG
CAACAAATGAATCCGAAGACGAAATCCACAGCTGGTACCAATAGGAAAGAAGACTCCAGCTAATGAAAAGTAG
AGATTCAAAAACATGCCACAGGAAAGAAGTCTCCAGCAAAGAGTCTTAATCCAGCACACCTCGTGGGAAGAAAA
GAAAGGCTTTGCCAGCATCTGAGACCCCAAAAGCTGCAGAGTCTGAGACCCAGGGAAAAGCCAGAGAAGAAGC
CAAAAATCAAAGAAGAGGCAGTGAAGGAAAAAAGTCCTTCGCTGGGGAAAAAAGATGCGAGACAGACTCCAAAAA
AGCCAGAGGCCAAGTTTTTACCACCTCTAGTAAATCTGTGAGAAAAGCTTCCACACCCCCAAAAATGGCCCA
AAAAACCCAAAGTACCCAGTCGACCTAAAGTCAGTGATTCAACTGGAAGGAAACCTCAATGCTGCCTCCAGAGC
TTTTTGAAATACTCAGATCCTGGCCGCTTTGTAACTTCTCTAAACGTGAGGCTGGACTTAAAAGATTTTTT
AAAACCTCCATAAGTAGTCCAGGGGCGGTGGCTCAGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCAGGCGG
ATCACAAGGTCAACGAGATCGAGACCATCTGGCCAACATGGTGAAACCTGTCTGTACCAAAAATACAAAATT
AATTGGGCATGGTGGTGGACACCTGTAATCCAGCTACTAGGGAGGCTGAGGCAGGAGAATTGCTTGAACCTGGG
AGGCGGAGGTTGCAGTGAGCCACTGCACTCCAGCCTGATGACAGAGCAAGACTCAGTCTCAAAAATAAATAAAAA
TAATAAAACCTCCATAAGTAATCCTGACATATGTTCTGGGTATAATCTGTTTCTAAATTGTCCTTCTGTGTATT
TGCTAATGTAATAGAGGGAAAAATAGAGTGCTTCTGTGTTGTTTCAGCACTTTAGGTAGCCAAGGTGAGAGGA
TTGCTTGAGGCCAGGAGTTTGAGACTAGCCTGGGCAACTTGGTAAAACCCCATCTCTACAAAAGAAAAA
TTAGTGTGGCATGGTGGCATGCATCTGTGCTCCAGCTCCTCACGAGGCTGAGGTGGAAGGATCAAGTGAGCGCA
AGAGGTTGAGGCTCCAGTGAGCCACGATCACCCCACTGTGCTGTAGCCTGGGTGACAGTGTGAGATTCTGTCTCA
GAAAAAACAAAGTATAACATTGCTTTGCTTCTGAGTATACTGTTGGCTTTCCAAATCAGTGGGTCTGACTTGAGG
TCTGTGATGTGACCCTTTTCTCACCTGCTCAACCATTATTCACATGGACTCCATCATATTCAATTTGTAGTCATT
CCCAGAGTGGCCAGTGAGGGTCTCGCTGTATGAGAGTCGGCTACGGAATTTAGGAGAAACAGAAGTTTCTTGGC
TTTCATGCTGAGCTTGTGGTCTAAGCTTATGAGTCACTGGATTAGCATCCATATGGGAAGGGAAATTAACATGG
AGTCATTTATACAGGGACTAAATTGAATCCTACCTACCGGAGGCAAGAACATGATTTATCTTCCATAAGCCTTAT
CCTCTTCTCCTTATTCTCAGTCCATATGGATTTGCTTATGTATGACAACTCCAAGGAATCTTGGAAGAGTAGA
TTGCTAACGTTTCCACAATTGTCAAGTATATTCTGAGGCAGTAAACACCTTTTTAGGTACGTGGCCTTTCAGTGG
TTGTGAATTGGTATGCATCCGTAGTAGTAAGTTACAGATTCACTGCAAGTGCAGGAATGTTCTTGATGCCAAAG
ACTCAACTGCTTTCAAAGATAATGTGGGTGCTAGATGCAGTGGCTTACATCTGTAACCTGTTAGGGTGACCAGA
CCCAACACCAGGTGCTGGGGGTGACAAAGTCCAGTGGAGTCAAAGGATTGAGAAAAAGACAGTTTGAGAGAGAAG
TAGGACCAGCAGACCATCGGGATGGTGGAGGCTGTGAAGGCCGTGAGCTCTGGGAGCCACACTATTTATTGGTA
ATCCAACAAAGAAACAGATGGTGAGAATGTGAAGGTGAGAAGGGCACCTTGCATTAAGCACATGATTTACAGCTG
TGATGGTTTAGCATTGCTCTGCTACTTGAGATGATGGAAGAGCAGGTTCTTTTAACTCAAGTTACAGTCGATCCT
GGGAGAGCAAGGAGCCAGCAAGTCTAGACATTCCAGAGCCACAGGCCCTGGATTTTATCCAAGCCACGAGGGATT
TTATGCCCTGGGCTTAGATTATGGTGCCTCAGGGCAGCCTTCCACCTTTTAGCACAGAGCTTGGTGTTCCAAAGA
CCACAAGGGGTTTTAGACCCTTGACCCTGGACATATTCCAAGACTCTTTTACATTATGTCAGAATGCAAGCCCTG
CCTCAGCTTCTCCCAACACTCAGCTTTTCGCAACATAATCCAGCACTTTGGAACGCTGGGTGGATTGCTTGAAC

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FIGURE 4323B

CCAGGAGTTCGAGACCATCCTGGGCAATATGGCAAAACCCCATCTTTACCAAAAATAAGCTGGGTGTGGTGGAAC
ATGCCTGTGGTCCCAGCTTCTTGGGAGGCTGAGGTGGGAGGATTGCTTGAACCCGGGAGGTAGAGGCTGCAATGG
GCCATGATCACGATCCTGCACTCCAGCCTGGGCAACAGAGAGAGACAGTCCCTGGCCCACTGCCCCCTTCCCTGG
CCCAGTCTCAAAAAAATGAGGCTGGGCGTGGTGGCTCACATCTGTAATCCCAGCCAAGGCTGGCAGATCACTTG
AGGCCAGGAGTTCTGAGACCAGCCTGGCTTACATGGTAAAACCCCATCTCTACTAAAAATACAAAACTAGCCAG
GCATGGTGGGAGGCACCTGTAATCCCAGCTACTTGGGAGGCTGAAGCAGGAGAATCACTTTAACCCGGGAGGTGG
AGGTTGCAGTGAGCTGAGATCACACCACTGCACTCCAGCCTGGGCGGCAGAGCAAACTGAAAAAAGAGAAAAA
AAAAAA

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FIGURE 4324

MEDSASASLSSAAATGTSTSTPAAPTARKQLDKEQVRKAVDALLTHCKSRKNNGLLNENESLFLMVVLWKIPS
KELRVRLTLPHSIRSDSEICLFTKDEPNSTPEKTEQFYRKLLNKHGIKTVSQIISLQTLKKEYKSYEAKLRLLS
SFDFFLTDARIRLLPSLIGRHFYQRKKVPVSVNLLSKNLSREINDCIGGTVLNISKSGSCSAIRIGHVGMQIEH
I IENIVAVTKGLSEKLPEKWESVKLLFVKTEKSAALPIFSSFVSNWDEATKRSLNKKKKGGKEKTKRKKF

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FIGURE 4325

CCAGCCACTTCCGCTGGTCGGCGCTGGAGGTGTCCGTGGGCTTGTACACGTCCCTGTGCCAGTACTTCAGCGAGG
AGGATGTGGTGTGGCGGACAGAGGGGCTGCTGCCCCCTGGAGGAGACCTCGCCCCGCCAGGCCGTCTGCCTCACCC
GCCACCTCACCGCCTTCGGCGCCAGCCTCTTCATGCCCCCAAGCCATGAGCCGACAGCGGATGTAAACTACATCG
TCATGCTGACATGTGCTGTGTGCTGGTGACCTACATGGTCATGGCCGCCATCCTGCACAAGCTGGACCAGTTGG
ATGCCAGCCGGGGCTGCGCCATCCCCCTTCTGTGGGCAGCGGGGCCGCTTCAAGTACGAGATCCTCGTCAAGACAG
GCTGGGGCCGGGGCTCAGGTACCACGGCCACGTGGGCATCATGCTGTATGGGGTGGACAGCCGGAGCGGCCACC
GGCACCTGGACGGCGACAGAGCCTTCCACCGCAACAGTCTGGACATCTTCCAGATCGCCACCCCGCACAGCCTGG
GTAGCGTGTGGAAGATCCGAGTGTGGCACGACAAAGGGCTCAGCCCTGCCTGGTTCTTGCAGCACATCATCGTCA
GGGACCTGCAGACGGCACGCAGCACCTTCTTCCTGGTC

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FIGURE 4326

CTGGGGCTGTGACCGTGGGGTCTGAAGCGCGCTGCGCGGCGGGCGGCTGGCGGGCGGCGGTGGGGCGGGGCGCTGGGC
TGTGAGCCGGCCTAGGAGGAGGAAGGAGCCTGCGGCGTGCAGTGTGAGGGGCGGGACCCGGCTGCCGGCGGTGGG
TCTAGCTGGGGGAGGTGCGGGCCATGCTGGTGGGCCAGGGCGCGGGGCGCTGGGGCCCGCGGTGGTCACCGCCGC
GGTGGTGTCTGCTGCTGAGCGGCGTGGGGCCGGCGCACGGCTCGGAGGACATCGTGGTGGGCTGCGGTGGCTTCGT
CAAGTCGGACGTGGAGATCAACTACTCTCTCATCGAGATAAAGCTGTACACCAAGCATGGGACTTTGAAATACCA
GACAGACTGTGCCCCAATAATGGTTACTTTATGATCCCTTTGTATGATAAGGGGATTTTATTCTGAAGATTGA
GCCTCCCCTAGGGTGGAGTTTTTGAGCCGACGACCGTGGAGCTCCATGTGGATGGAGTCAGTGACATCTGCACAAA
GGGTGGGGACATCAACTTTGTCTTCACTGGGTTCTCTGTGAATGGCAAGGTCCTCAGCAAAGGGCAGCCCCCTGGG
TCCTGCGGGAGTTTCAAGGTGTCTCTGAGAAACACTGGGACCGAAGCAAAGATCCAGTCCACAGTTACACAGCCTGG
CGGAAAGTTTTGCATTTTTTAAAGTTCTGCCTGGAGATTATGAAATCCTCGCAACTCATCAACCTGGGCGTTGAA
AGAGGCAAGCACCACAGTGCCTGTAAACCAACTCCAATGCCAATGCGGCCAGTCCCCTCATAGTTGCTGGCTACAA
TGTGTCTGGCTCTGTCCGAAGTGATGGGGAGCCCATGAAAGGCGTGAAGTTTTCTTCTTTTTCTTTTAGTAAC
TAAAGAGGATGTCTGGGCTGCAATGTCTCACCAGTGCCTGGGTTCCAGCCCCAAGACGAGAGTCTGGTGTATTT
GTGCTACACGGTCTCCAGAGAAGATGGCTCGTTCTCTTTCTATTCTTGGCAAGTGGGGGCTACACTGTGATTCC
GTTCTATCGAGGGGAGAGGATTACCTTTGATGTGGCGCCTTCCAGACTTGACTTTCACAGTGGAGCATGACAGCTT
GAAAATCGAGCCCGTGTTCACGTCATGGGATTCTCCGTACCCGGGAGGGTCTTGAACGGACCCGAAGGAGATGG
TGTTCCAGAAGCAGTAGTCACCCTGAATAACCAAATCAAAGTTAAAACAAAAGCTGATGGCTCATTCCGCCTTGA
GAACATAACCACAGGGACATACACCATCCATGCTCAGAAAGAGCACCTCTACTTTGAAACGGTCACCATCAAAAT
TGCACCAAACACACCTCAGCTGGCTGACATTGTTGCAACAGGGTTTCAAGTGTCTGTGGTCAGATATCAATCATTCC
CTTCCCCGACACCGTCAAGCAGATGAATAAATACAAAGTTGTCTGTCTCAAGACAAGGACAAGTCTTTGGT
CACCGTGGAGACAGATGCTCATGGATCATTTTGTTTTAAAGCAAACCCAGGGACTTACAAAGTGCAGGTGATGGT
TCCTGAGGCGAAGAACAGAGCAGGGCTGACGTTGAAACCCAGACATTTCTCTTACTGTGACCGACAGGCCTGT
GATGGATGTGGCCTTTGTACAGTTCTTGGCATCAGTTTCTGGGAAAGTCTCTTGTGTTGGACACCTGTGGTGACTT
GCTGGTGACTCTACAGTCCCTGAGCCGCCAGGGTGAAGCGGAGCCTCCAGCTCTCCGGCAAGGTCAACGCCAT
GACTTTACCTTTGACAACGTGCTCCCTGGAAAAATACAAAATAAGCATCATGATGAGGATTGGTGCTGGAAGAA
CAAGAGCCTGGAGGTGGAAGTGTGGAGGATGACGTGTCTGCAGTTGAGTTTCAAGGACAGCGGGCTACATGCTGAG
ATGTTCCCTGTCTCACGCCATCACTCTGGAATTTTATCAGGATGGAATGGGCGTGAGAATGTGGGGATTTATAA
CCTCTCCAAAGGAGTCAACCGATTCTGCCTGTCCAAGCCTGGTGTGTACAAAGTGACCCCTCGCTCCTGCCACCG
GTTTGAGCAAGCGTTCTACACCTATGACACGTCTTACCTAGTATCTTGACATTGACAGCCATTGCCCACCATGT
CCTTGGAACTATCACCACCGACAAAATGATGGATGTCACTGTGACTATCAAGTCTTCCATCGACAGTGAACCCGC
CTTGGTCTTAGGCCCTCTGAAGTCTGTGCAGGAGCTGCGGAGGGAGCAGCAGCTGGCTGAGATCGAGGCCCCGAG
GCAGGAGAGGGAGAAAAACGGCAAAGAGGAAGGCGAAGAAAGAAAGACCAAGCCTCCCGTGCAGGAGATGGTAGA
TGAGTTACAAGGCCCTTCTCGTATGATTTCTCTTACTGGGCGCGGTCTGGAGAGAAAATCACTGTTACACCGTC
ATCTAAAGAGCTGCTCTTTTATCCCCCTTCAATGGAAGCCGTTGTGAGTGGAGAAAAGCTGCCAGGGAAAGCTGAT
CGAGATCCACGGGAAGGCAGGCCTGTTTTAGAAGGCCAGATCCACCCCGAGTTGGAAGGAGTCGAGATTGTCAT
CAGTGAAGAGGGGGCAAGTTCACCGCTGATCACAGTCTTTACTGATGACAAAGGTGCCTACAGTGTGGCCCCCT
GCACAGTGACCTGGAGTACACGGTGACCTCACAGAAGGAGGGCTATGTTCTGACTGCGGTGGAAGGAACCATCGG
AGACTTCAAGGCCTATGCCCTGGCAGGCGTAAGCTTTGAGATAAAAGCTGAGGATGACCAGCCCCCTCCCGGGAGT
CCTCTTATCCCTGAGCGGTGGCCTGTTTCGTTCCAACCTCTTGACCCAGGACAACGGAATTCTGACATTCTCAA
CCTGGTGACGTGTTCTGCAATTTACCACCTGCCTGTCTCCCTGAGAGAGAGCCAGGATGCAGCATGCGAGACTT
ACGTGTTGCTTGACAACGTGAGAAGAGAAGGCCAATGTGGAGTGGTTTCAGTTTCT

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FIGURE 4327

AGCCGCTCTGCCGCCGCCGCCGCGTTGGCCTCGCCGCCCTGCTCGGACACCATGCCACAAGGAGAGTGATCTC
TTCCCCTGTTTTACAAATGAGGAGACTCCGGAAGACTTTTTCAGCTCCGAGGAGGAAGAAGCTAACTATTGGAAAGA
TCTGGCGATGACCTACAAACAGAGGGCAGAAAATACGCAAGAGGAAGTCCGAGAATTCCAGGAGGGAAGCCGAGA
ATATGAAGCTGAATTGGAGACGCAGCTGCAACAAATTGAAACCAGGAACAGAGACCTCCTGTCCGAAAATAACCG
CCTTCGCATGGAGCTGGAAAACCATCAAGGAGAAGTTTGAAGTGCAGCACTCTGAAGGCTACCGGCAGATCTCAGC
CTTGGAGGATGACCTCGCGCAGACCAAGCCATTAAAGACCAATTGCAGAAATACATCAGAGAGCTGGAGCAAGC
AAATGACGACCTGGAAAAGAGCCAAGCGCGCCACGATCATGTCTCTCGAAGACTTTGAGCAGCGCTTGAATCAGGC
CATCGAAAAGAAATGCCTTCTGAAAAGTGAACCTTGATGAAAAGAGAATCTCCTGGAATCTGTTTCAGAGACTGAA
GGATGAAGCCAGAGATTTGCGGCAGGAAGTGGCCGTGCAGCAGAAGCAGGAGAAACCCAGGACCCCCATGCCAG
CTCAGTGAAGCTGAGAGGACAGACACAGCTGTGCAGGCCACGGGCTCCGTGCCGTCCACGCCCATTTGCTCACCG
AGGACCCAGCTCAAGTTTAAACACACCTGGGAGCTTCAGACGTGGCCTGGACGACTCCACCGGGGGACCCCCCT
CACACCTGCGGCCCGGATATCAGCCCTCAACATTGTGGGAGACCTACTGCGGAAGTCGGGGCACTGGAGTCCAA
ACTCGCTTCTGCGGAACCTCGTGACGATCAGTCCCCAAACCGAACAGGTGGCCAGCCTCTGGGCGGAGCAG
CAAGAACAGAGATGGCGGGGAGAGACGGCCAAGCAGCACCAGCGTGCCTTTGGGTGATAAGGGGTGGACACGAG
TTGCCGCTGGTTGTCAAATCAACAACCAGGTGTCAGCTCCTGCTGAAGCCTGTTCTTGGTCTTTTCCAGTTT
ATCATACGCGGCCGCTTCTCCTCGTACTGCTGGGTGAGGTTCTCGATCTCCTTCTGGAACCTCTTCTCCCTC
TTCCAGAGCTTCCACGGTGCTGGCAAAGTCTGAGCTTCTTCTCGAGTCGGAGAGCTACAAGGACAGCGTCCA
GGGTAGGGTGAGAGGGGGACCATGAATGGCCCCTGTCCCTGGCCCCACAGACTCTGAGAAGCGAAGACCATGTCT
CCTCGTTGGAGAAACCAATAGCAGGGGAAGCTGGGGGGTCAAGCACCATCGCACCAACACTCCACCGCATCTG
CCTGCGGGGGATCTCAGCGCAGAGAAGTTGAGAGGACCCATGAAGGAAGCAAGGACACGGGGCAGGCACCTGGAT
GTTGAGAGTGGAGATGTGGCGCTCCAGGTTCTGCTTGGCCTCCATCTCCTCGTCCAGCTGGTCTTGCAAGGCTGTT
CCGCTCCTCCTCCAGCTGGCGCAGCTTCGTAGACACGTTGAGCTTCTGCCGGTTTTCTTCTTGAAGCAGCTCCTG
CAAAAGGGATGCAAAAGAGGTCCCAGGGACCTGCCCCGAGGAAGGCCACCCCCAGGTCCCCTGGATGATGTGGCA
GGACACTCACCTGGGTGTCTTGGAGCTGGGAACTGAGGGACGCCACGTCTTGGCCAGCTTAATGGCCTTCCCCT
CGGCCTCGTTAAGCATCCCTGTGACGCTCTCAACTTCATTCTAAGGGTGCCAAGAGACTGGTTAGTCAAAGCCTC
TAGAAGGGGATCCTCGTTGAAAGGAGCCCTTTTTACTCAAACACATGGGCTAGTACTTGAGGTGTTCACTGATT
GAGAAAATACCCGTGAGGTATGGGACTCTGAAAAAAAAAAAAAAAAAAAA

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FIGURE 4328

MEDSGKTFSSSEEEANYWKDLAMTYKQRAENTQEELREFQEGSREYEALETQLQQIETRNRDLLSENNRLRMEL
ETIKEKFVQHSEGYRQISALEDDLAQTKAIKDQLQKYIRELEQANDDLERAKRATIMSLEDFEQRLNQAIERNA
FLESELDEKENLLESVQRLKDEARDLRQELAVQQKQEKPRTPMPSSVEAERTDTAVQATGSPSTPIAHRGPSSS
LNTPGSFRRGLDDSTGGTPLTPAARISALNIVGDLLRKVGALESKLASCRNLVYDQSPNRTGGPASGRSSKNRDG
GERRPSSTSVPLGDKGLDTSCRWLSKSTTRSSSSC

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FIGURE 4329

GGCTGGGGAAACAGAACTCGCAGAAGTTAAAAAATGTGCTTGAGGTGCCACTGGAGAATAACAATCATAGCCA
GGATCTGAAGCCTGTCTAGTTTCTCAGCCGCAAATTCTTCCATGTGGGGCGACCTCACAGAGACGGGATGTATGG
GACGGCGGAGTGCAGAAAGATCAGCTGGACATCATCTCCATGGCGGAGACAACCATGATGCCAGAGGAGATTG
AGCTGGAGATGGCAAAATTCAGCGTCTCCGGGAAGTCTTGCTCCGCCGGGAGTCTGAGCTCAGGTTTCATGATGG
ATGACATCCAGCTCTGCAAGGACATCATGGACTTGAAGCAGGAGCTGCAGAACTTGGTCGCCATCCCAGAAAAAG
AAAAAACCAAACCTGCAGAAGCAGAGAGAGGATGAGCTAATCCAGAAGATCCACAAACTGGTGCAGAAGAGAGACT
TCTTGTTGGACGATGCGGAGGTCGAGCGGTTAAGGGAGCAAGAAGAAGACAAGGAAATGGCTGATTTCTTGAGAA
TCAAGTTAAAACTCTAGACAAAGTAACCAAATCTCCAGCCAGCTCCCGGGCAGAGAAGAAAGCAGAGCCCCAC
CTAGCAAGCCCCACGGTGGCCAAAGACGGGGCTGGCACTGATCAAGGATTGTTGCGGGGCCACCCAGTGCAACATCA
TGTAGCCCCACGTGGGGTGCCCTGGGCCATGGGGACCCCCCCCCACCCCTCTTGTCTTTATAGCCCCATTTTAC
CGGGGCCCCAAGAGCTCTCCAAGGCAGAAGGGGTTGAAGGCAAGCCCGTGACTGTACCAGAGGCCATGGGCACGG
CAGGCGGGCCTGGCCACCCTGTACAGAGTGTAGCAGTAGGGAGTCTCTACCGTTCGCATGGTCTCTCCAGAGCA
TGCCGAACCCAGGAGTCTGTCTCACTGTTTATCCAAACACCAGGAAAGGTCTCTCCCTCAAAAAAGCATATCTCCA
CTTCTCTCTAGCTGTATCTAACCCACCGTGTGAATGAACTGGGAGAGGGGCATGCTCCCCAGCTGTGTGTAGTCG
TGACTTCTCAACAATCTAGCACCATGTCGGACACGTTCCCCATCCACCCTCCTAGCTCTGCTCTCAGAGCTAGGC
ACATGGGCACAGGTCCCCCTCCCGTCTGTCTCTCCAGCAACTGTGCCCTGGAGGGCTCCACATGGCCCCCGTGT
CTCTCGGGCACCACCCATATAGCAGTCCCAGAGGGGCCATCTGTAAAGATCGAGCTTGTGTGTGGTGTCTGTGGTC
ACATCTCCCGCTTCCCCCATCCTGTGTCTGGGCACAGTTCACATCAGGACAGCGTCCATTGTGCTCTCAGTCTG
CCTCAGGTGTGTGCCTGGAGGGGGCCTGGACTGGCATGGATCCAGTGTGCAGAAGAGCCAGCAGGGAACCGGAAG
CTCTGATGTCAAGGCCAGAGCAGTTGAGAATGGGACCCAGAGTAGATGCTGACCTGGGCACTCCACCATTCCGGG
GCCACCACAGAGATGCCAGCAGGATGCCACTTTGCCAGCCGACACACGGACCTTTGTAAAGAACAGCAACAGGC
AGGAGAGGCAGCGTGTGACCAGATTGTGTCCCGTCATTGGGTGGCATATGTAACTAGCTGCCAAACAACCTTCAA
CCCGTGTAATTCATGTACATTTGCAACAGCCAGCCCGGTACAGCCTGTGTGACTTCTCTGTATGTGTGTGTGTGT
CGTGAACCAGCCTAAGTAGTTAGCATAACTCAAGATGCTGATGTGCAGTCACCCATCAGAGAAAATAAAAAATGGAA
ACCACGTTACAGCATTTTAAAAAGTTTTTACTTTTTTTCTTGATTATGGAAGTAATCCATGTACATAGTAAATCA
TTTTAAAAGTACAAAAAGTATGAAGAAGTTTGTCTT

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FIGURE 4330

MSDTFPIHPPSSALRARHMTGPLPSVLSQQQLCPGGLHMAPVSLGHHYPYSSPRGPICKDRACVWCRGHISRFPSS
 CVWAQFTSGQRPLCSQSASGVCLEGAWTGMDPVCRRASREPEALMSRPEQLRMGPRVDADLGTPPFRGHHRDASR
 MPLCQPDTRTFVKNSNRQERQVRTRLCPVIGWHMLTSCQTTSTRVIHVHLQQPARYSLCDFSVVCVVS

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FIGURE 4331

GGCAGATGTACAGAACTGAAATTCGAATGGCGAGGATGGCAAGAAAAGCTGGCAACTTCTATGTACCTGCAGAAC
CCAAATTGGCGTTTGTCTTCAGAATCAGAGGTATCAATGGCGTGAGCCCAAAGGTTCGAAAGATGTTGCAGCTTC
TTTGCCTTCGTGAGTCTTCAATGGAACCTTCGTGAAGCTCAACAAGGCTTCGATTAACATGCTGAGGATTGTAG
AGCCATATACTGCATGGGGGTGCCCCAATCTGAAGTCAGTAAATGAACTAATCTACAAGCGTGGTTATGGCAAAA
TCAATAAGAAGCAAATTGCTTTGACAGATAACGCTTTGATTGCTCGATCTCTTGGTAAATACGGCATCATCTGCA
TGGAGGATCTGATTCATGAGATCTATACTGTTGGAAAACACTTCAAAGAGGCAAATAACTTCCTGTGGCCCTTCA
AATTGTCTTCTCCACGAGTTGGAATGAAGAAAAAGACCACCATCTTGTAGAAGGTGGAGATGCTGGCAACAGGG
AGGACAAGATCAACAGGCTTATTAGAAAAATGAACCAAGGTGTCTACCATGATTATTTTTCTAAGCTGGTTGGTT
AATAAACAGTACCTGCTCTCAAATTG

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FIGURE 4332

MYRTEIRMARMARKAGNFYVPAEPKLAFVFRIRGINGVSPKVRKMLQLLCLRRVFNGTFVKLNKASINMLRIVEP
YTAWGCPNLKSVNELIYKRGYKINKKQIALTDNALIARSLGKYGIICMEDLIHEIYTVGKHFKKEANNFLWPFKL
SSPRVGMKKKTTHLVEGGDAGNREDKINRLIRKMNQGVYHDYFSKLVG

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FIGURE 4333

ATGATAAATGGTATTTCAGTACTGGACTGTGCCTGAGGAGAGGCTTCAACTGAATGTGGATGTTGATGACCTGGAC
TGTCAGGGTCCACCTCTACCTCCCAGAGCCTCAGAGCCCACAAGACAAAAAACTGAGCCTGTGAAGCGATTAAAA
GTCTGGATCTTAGAGGGAGCTCCAAGGAAAACATAATCCAAAATGCCTCATCTGGGAGGTGAAGCAATGATTGAA
CAAGGATTGCTGAGCTTTGGCAAGGAAGAAAAGGGCACTTGCTGTCAACAGAAAGCAGGTGTTCTGGGAAGACTG
GAGGAGCTGTGGGTGGTGAGGCAGACACTGGGCTTGGCTCTGGAAGCCCGAACCTCAGAACATTAAGCTGAACCAT
CTGAAGCTCCTCCACGAAACAGGATATTTGTTGCAGACACTCAGAGAATCTCCAGAGAAACCTGGCTTAGAGGCC
GTGGATTTCAGGGACATCGCTGAAGCCCTGTGCTGGTGGAATTCCTACTACTGATATCTTGGGCCAGGAACTGCAT
TCTGGGAACCAGCACTGGTACGAGGAGCTGCAGGTACAGCAGGCAGACATGGGGACGACCTGCGCAACACCAAG
CAGGAGATTGCTGAGATCAACCGCATGATCCAGAGGCTGAGATCTGAGATCGACCATGTCAAGAAGCAGCATATT
ATATCTCAGGCATCGGGACAGGTCACCTGCCTATATTCCTTCTTCCCTCCAAGCAGGCAAGCTTCATATTAGTGTCT
CCACTTGCTGGGGAACCTTGA

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FIGURE 4334

GGGAAGGGCGGCCGACCCATATAAGCAGCCTGCGGGGCGTTCCCTCGGGTTGTGGTTGGTGTGCGGGTTTCGGTT
GGAGGACTCGTTGGGGAGGTGGCCTGCGCTTGTAGAGACTGCATCCCCGAGACGATGGCGGAGGGAGATAATCGC
AGCACCAACCTGCTGGCTGCAGAGACTGCAAGTCTGGAAGAACAGCTGCAAGGATGGGGAGAAGTGATGCTGATG
GCTGATAAAGTCCTCCGATGGGAAAGAGCCTGGTTTTCCACCTGCCATCATGGGTGTGGTTTTCTTTGGTGTTCCTG
ATTATCTACTATCTAGATCCATCTGTTCTGTCCGGCGTTTCCTGTTTTGTTAIGTTTTTGTGCTTGGCTGACTAC
CTTGTTCACATTCTAGCGCCTAGAATTTTTGGCTCCAATAAATGGACCACTGAACAACAGCAAAGATTCCATGAA
ATTTGCAGCAATCTAGTAAAACTCGACGCAGAGCTGTGGGTTGGTGGAAACGCCTCTTCACACTAAAGGAAGAA
AAACCTAAGATGTACTTCATGACCATGATCGTTTTCCCTTGCTGCGGTTGCTTGGGTGGGACAACAAGTCCACAAC
CTGCTTCTCACCTACCTGATAGTGACTTCCTTACTATTGCTTCCTGGACTAAACCAACATGGAATCATTGTAAG
TACATTGGAATGGCCAAGAGGGAGATAAAACAACTTCTCAAACAAAAAGAAAAGAAAACGAATGATTCATCTGC
TTTAATCAGTGTGATTAATGCGACCCCCATTGCCCGGGAACCGTTTCTGCTGTACTATCTGGATACTAAAATGT
TACGGAAGTAGCTCTTTGTTCTCCCTCACTCTGCCCTTAGTTAATAGAAATTCAGACTCGCCAAGTAAGGCTTCG
TGACTGTGCTCTTCATGTCGCGTATAGTTGAGCGCGTTCTTAGCAGTTGGCTTCATGGACAACCTCATTAGTGTTT
TGACTTTTTCTTACCCAGCGTTAATTGAATTCCTTGCTTTTAGACAACCTTCCTTTTTGTAGTGGTGAACCTTGCCCT
TTAGTACAGTTCAAGTGAATCTGGATAATTGTTTCATCTTTGCTTTAGCTTAGATACCATGTAGTGGTCTGTGGCT
ACAGGAAGCTGGTTCTGTCTGCTTCCACAGTCTGCTTAAAAAAGTGTCTGACTTCGTGAATATAGAGACCAAGTT
TACCACTTCTGATGAAGAGACCAATTAAGATTCATTCTCTGTTTCTTTCCAGTGGGAGAAGAGTCCCCAT
GAAATAAGATGAAACTGATTCCATGCACTAGTACATGTAGGCTTCTCCCTTGTCGAAAGCTTAGCAATTTGTAGG
AACTTTGATCTTTTTGTCCAAGAAAAGGAATGTCTGACAGGCTTAAGCTTTCGTCCCCTTGCACTTAGACTCGA
AGTTAGTAAATCCTTAAAGGCTTTTTAATAGCAGACTTCCAAAAGATTGCATTTAGGATTTCTAGCATGCTTTTA
ATTCAGATTTTCAGCTGACATTAGCTATAGTATACAGTAGGTTAAGACTCATGTCTATGACTTTCACTCTAAGA
CTGGCAAAAGGACAGCAGTCTTCTATGTTTAGTCAATATTCATTTAGTAGAAGATAATCTTATCTAATTTTTGA
GACCAGAATAAGCCTTTTAAGGTAAACCTCAAAATTATCATTTTATGGTAATACTGACCATTTTAGTCCCCTAGG
TTTGACATGGGAGATAGTGACTACACTGGTGTCTGACTTTTTTCTAGAGATTTCTCCCTGAAAAATACAAGGGC
TGTTGGTGAGAGCAGACTTGAGGTGATGATAGTTGGCCTCTGGTCTACAAAGATTCATAACTCCTTGGAAGCT
TCTTATAATCATTCTTAACCTCTTGGTAGCTAGAAATTTAGAGTAGTTGAAATCTTAGGAATGAACCTCTGAGG
GCCAAAAATGTGACTGACGGGAACAATCTTAAACTGATTAAGTCTGTAATATAGTTTTGTGAATTTATTGC
ACTGATGTTGTACCTTGTGGTATATCTGTCCCTATTAAATAAGTGTGTTTTCTCTCTTTAATATTGCTGTGAA
CAGTGGTGCCCATGTAGCATATGTTTGATTTTTTTTTTATTATTTTATAAGAAAACACGTTAATTTTACCTTAC
TTTCATTGTAAATAAGCCTGTCTTCCTATCTGGATTTTTTGTGTGCATACATTTCTACTGATTAAGTACTTTTG
CAGTTTTAATCCTGTATTATTTCTTCTACTTTGTTTTGTGTAAAGGGGAAAAAATAAAAAAGCTGGAATCTTC
ATGTCTC

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FIGURE 4335

GCCCCAGGAGCCCCGGCGGGTCCGGGACTCCCCGTCCGTGCCGGTGCGGGCGCCGGCATGTGGCCTGTGGGAGGACCA
GGGCGGCCTCCTGGGCCCCCTTCTCCTTCCGTGCTAGTGCTGCTGCTGGTGACGCGGAGCCCCGGTCAATGCCTG
CCTCCTCACCGGCAGCCTCTTCGTTCTACTGCGCGTCTTCAGCTTTGAGCCGGTGCCCTCTTGACGGGCCCTGCA
GGTGCTCAAGCCCCGGGACCGCATTTCTGCCATCGCCACCGTGCGCGCAGCCACGACGCGCCGAGAACACGCT
GGCGGCCATTTCGGCAGGCAGCTAAGAATGGAGCAACAGGCGTGAGTTGGACATTGAGTTTACTTCTGACGGGAT
TCCTGTCTTAATGCACGATAACACAGTAGATAGGACGACTGATGGGACTGGGCGATTGTGTGATTTGACATTTGA
ACAAATTAGGAAGCTGAATCCTGCAGCAAACCACAGACTCAGGAATGATTTCCCTGATGAAAAGATCCCTACCCT
AAGGGAAGCTGTTGCAGAGTGCCTAAACCATAACCTCACAATCTTCTTTGATGTCAAAGGCCATGCACACAAGGC
TACTGAGGCTCTAAAGAAAATGTATATGGAATTTCTCAACTGTATAATAATAGTGTGGTCTGTCTTTCTTGCC
AGAAGTTATCTACAAGATGAGACAAACAGATCGGGATGTAATAACAGCATTAACTCACAGACCTTGAGCCTAAG
CCATAACAGGAGATGGGAAACCACGCTATGATACTTTCTGGAAACATTTTATATTTGTTATGATGGACATTTTGCT
CGATTGGAGCATGCATAATATCTTGTGGTACCTGTGTGGAATTTACGCTTTCTCATGCAAAAGGATTTTGATATC
CCCGGCCTACTTGAAGAAGTGGTCAGCTAAAGGAATCCAGGTTGTTGGTTGGACTGTTAATACCTTTGATGAAAA
GAGTTACTACGAATCCCATCTTGGTTCCAGCTATATCACTGACAGCATGGTAGAAGACTGCGAACCTCACTTCTA
GACTTTCACGGTGGGACGAAACGGGTTCAAGAACTGCCAGGGGCCTCATACAGGGATATCAAATACCCTTTGTG
CTAGCCCAGGCCCTGGGGAAATCAGGTGACTCACACAAATGCAATAGTTGGTCACTGCATTTTTACCTGAACCAA
GCTAAACCCGGTGTGTCACCATGCACCATGGCATGCCAGAGTTCAACACTGTTGCTCTTGAAAATCTGGGTCTG
AAAAAACGCACAAGAGCCCCCTGCCCTGCCCTAGCTGAGGCACACAGGGAGACCCAGTGAGGATAAGCACAGATTG
AATTGTACAATTTGCAGATGCAGATGTAAATGCATGGGACATGCATGATAACTCAGAGTTGACATTTTTAAACTT
GCCACACTTATTTCAAATATTTGTACTCAGCTATGTTAACATGTACTGTAGACATCAAACCTTGTGGCCATACTAA
TAAATTTATTTAAAGGAGCACTAAAGGAAAACCTGTGTGCCAAGCATCATATCCTAAGGCATACGGAATTTGGGGA
AGCCACCATGCAATCCAGTGAGGCTTCAGTGACAGCAACCAAATGGTAGGGAGGTCTTGAAGCCAATGAGGGA
TTTATAGCATCTTGAATAGAGAGCTGCAAACCACAGGGGGCAGAGTTGCACTTTTCCAGGCTTTTTAGGAAGCT
CTGCAACAGATGTGATCTGATCATAGGCAATTAGAACTGGAAGAACTTCCAAAAATATCTAGGTTTGTCTCAT
TTTACAAATGAGGAACTAACTCTGTGGAAGGGAAGGGGTTGCCTCAAAGTCACAGCTTAGCTGGGCACAGTG
GCTCATGCCGATAATCCAGCAATTCAGAAAGCTGAGGCAGGAGGATTACTTGAGGCCAGACTGGGCAATATAGC
AAGACCCCATCTCTAAAAAATTAGGCATGGTGGTGCATGCCTGTATTCCCAGCTACTCAGGAGGTTGAGGTGGGA
GGATCACTTGAGCCAGAAGTTCAAGGCTGCAATGAGCCATGATTACACCACGGCACTACAACCTTGGTGGCACA
GTGAGAACCTGACTCTTAAAAAAAAAAAAAAAAAAAA

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FIGURE 4336

MWLWEDQGGLLGPFSLFLLLVLLLVTRSPVNACLLTGSLFVLLRVFSFEPVPSCRALQVLKPRDRISAIHRGGSH
DAPENTLAAIRQAAKNGATGVELDIEFTSDGIPVLMHDNTVDRTTDGTGRLCDLTFEQIRKLNPAANHRLRNDFP
DEKIPTLREAVAECNLHNLTIFFDVKGHAHKATEALKKMYMEFPQLYNNSVVCSEFLPEVIYKMRQTD RDVITALT
HRPWSLSHTGDGKPRYDTFWKHFI FVMMDILLDWSMHNILWYLCGISAFMLMQDFVSPAYLKKWSAKGIQVVGWT
VNTFDEKSYYESHLGSSYITDSMVEDCEPHF

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FIGURE 4337

CTCTTTCCGCCATCTTTCCGCGCCGGCCACAATGGTGCGCATGAATGTCCTGGCAGATGCTCTCAAGAGTATCAA
CAATGCCGAAAAGAGAGGGCAAACGCCAGGTGCTTATTAGGCCGTGCTCCAAAGTCATCGTCCGGTTTCTCACTGT
GATGATGAAGCATGGTTACATTGGCGAATTTGAAATCATTGATGACCACAGAGCTGGGAAAATTGTTGTGAACCT
CACAGGCAGGCTAAACAAGTGTGGGGTGATCAGCCCCAGATTTGACGTGCAACTCAAAGACCTGGAAAAATGGCA
GAATAATCTGCTTCCATCCC GCCAGTTTG GTTTTCATTGTACTGACAACCTCAGCTGGCATCATGGACCATGAAGA
AGCAAGACGAAAAACACACAGGAGGGAAAATCCTGGGATTCTTTTTCTAGGGATGTAATACATATATTTACAAATA
AAATGCCTCATGGACTCTGGTGCTTCCACTTGGTCGTTTTGAGCCTTTACAGCAGTGTAGCCACAGCTTCTGCGG
CAGCATGCAGTTGCTTCGTTTATCGGTGAATGCGATTCCCAGATTCAAGTAGTTCTCGTGCCTCAGCCTCCTGAG
TAGCTGGGATTACAGGTGTGTGCCACCATGTCTGGCTGATTTTTGTATTTTTAGTAGAGGTGGGGTTTACCATG
TTGGCCAGGCTGGTCTCGAACTCCTGATCTCAAGTGATCTGCCTGCCTTGGTCTCCCAAAGTGCTGGGATTACAG
GTGTGACCACCACGCCCTGCCTTAAGAATTGTTCCAAGAGAATCTGGTGCCACTTG CAGGTGCCCATTGAAGTGC
AATGGGCACTGTTGATCACTGAGGAGGTAGTGGGTGCTGACCCGGTGCTGGGGCCTGTCCCCTAGTCTCTGCTTT
GCCCTTGGCTAGCTAGGTGGTG TGCCAAGTGGGGAGAGAAGCTACCTTATTAAGGGGCATGGATCAGCTTCCTGA
AAGGAGGGCCTGCCTCTGTAA GATATGGGAAGTCGCTGAGAATGTTACAGAACGGCCCTAGAGATGGGGCAGATA
ACGGCCCCCATTTGTGAGAAGTGAGTTGGGAGGCATGTTTGGGGCCTCTGATGTTTGGGAGGCTGTGGGTAATTA
ACATGAGTTTTGGGGTCCAGCAGCAGAATTCAGGTTTCTCTTCCACTCAGTAACCTCAGCATCCGTATCTGTAA
TGGGAATGATACAAAACCTATCCCCAAGTTGAGGGAAAAATGAGATTGTGTAAAGCGCACTTGGCACATGACAGT
CACAAAGCATGGGGACAGTGAGTCCAGAAGGATTTTCTTATGCCAGCATTGTAAGCCCTAGGATCACAGGGCTCTG
GCTTGTTTAAACCATCGTGTCTCTGGTCCCTAGCCTGCAAACCTGGTGTGTAGGGATGCCTCAGTCGCTTACATGT
TGATTGAGTGAATCGTCGGTTTCTTCTGGACACTGACTTCAAAAATAAA

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FIGURE 4338

CGCAGAGTCCCCGGGCCAAGATGGCTGCGCGGTGCTCCACACGCTGGTTGCTGGTGGTTGTGGGGACCCCGCGGC
TGCCGGCTATATCGGGTAGAGGGGCCCGGCCGCCAGGGAGGGCGTGGTGGGGGCATGGCTGAGCCGCAAGCTGA
GCGTCCCCGCCTTTGCGTCTTCCCTGACCTCTTGCGGCCCCGAGCGCTGCTGACATTGAGACCTGGTGTCAGCC
TTACAGGAACAAACATAACCCCTTTCACTTTGCTGCTCCTTCCACACGAGTGCCCCCTTTGGCCAAAGAAGATT
ATTATCAGATATTAGGAGTGCTCGAAATGCCAGCCAGAAAGAGATCAAGAAAGCCTATTATCAGCTTGCCAAGA
AGTATCACCTTGACACAAATAAGGATGATCCCAAAGCCAAGGAGAAGTTCTCCAGCTGGCAGAAGCCTATGAGG
TTTTGAGTGATGAGGTGAAGAGGAAGCAGTACGATGCCTACGGCTCTGCAGGCTTCGATCCTGGGGCCAGCGGCT
CCCAGCATAGCTACTGGAAGGGAGGCCCACTGTGGACCCCGAGGAGCTGTTGAGGAAGATCTTTGGCGAGTTCT
CATCCTCTTCACTTTGGAGATTTCCAGACCGTGTGTTGATCAGCCTCAGGAATACTTCATGGAGTTGACATTCAATC
AAGCTGCAAAGGGGGTCAACAAGGAGTTCAACGTTGACATCATGGACACGTGTGAGCGCTGCAACGGCAAGGGGA
ACGAGCCCGGCACCAAGGTGCAGCATTGCCACTACTGTGGCGGCTCCGGCATGGAAACCATCAACACAGGCCCTT
TTGTGATGCGTTCCACGTGTAGGAGATGTGGTGGCGCGGCTCCATCATCATATCGCCCTGTGTGGTCTGCAGGG
GAGCAGGACAAGCCAAGCAGAAAAAGCGAGTGATGATCCCTGTGCCTGCAGGAGTCGAGGATGGCCAGACCGTGA
GGATGCCTGTGGGAAAAAGGGAATTTTATTACGTTTCAAGGTGCAGAAAAGCCCTGTGTTCCGGAGGGACGGCG
CAGACATCCACTCCGACCTCTTTATTTCTATAGCTCAGGCTCTTCTTGGGGGTACAGCCAGAGCCCAGGGCCTGT
ACGAGACGATCAACGTGACGATCCCCCTGGGACTCAGACAGACCAGAAGATTCCGGATGGGTGGGAAAGGCATCC
CCCGGATTAACAGCTACGGCTACGGAGACCACTACATCCACATCAAGATACGAGTTCCAAAGAGGCTAACGAGCC
GGCAGCAGAGCCTGATCCTGAGCTACGCCGAGGACGAGACAGATGTGGAGGGGACGGTGAACGGCGTCACCTCA
CCAGCTCTGGTGGCAGCACCATGGATAGCTCCGCAGGAAGCAAGGCTAGGCGTGAGGCTGGGGAGGACGAGGAGG
GATTCCTTTTCAAACCTTAAGAAAATGTTTACCTCATGATATCCAGCCGAGGAAAAAGATCCACTGGAACTAGG
CCGGGAAGCAGCAGCCCTCCAAGGGCCAGGGCACCTGGGAGACGGGAGGATTCCAGAACAGCAGCACTGAGCTC
CCACCCGCAGAGCCTCTGGACGGCCTTGGCAACAGCAAAATCATGGGACAACACCTCTCTCCACGGAAAGGTCAC
AGTGGACAGCCCGGGCAGTAGGATGCAGCCCCAGAGGCTGGTGGCAGTTTCTGTCCATTGGTAGGTGACGGCCC
CTGGCTCAGGCAGAGGGAGATGGTTAGACTCTTGAGGGCTAAAACCTTAATTTGGAATTGAATATTGTGGATAT
CTTAGTTAAAGGCCATGCTTACAGCTTAGAAATGAAGCCTTAAGCTGCATCAAGTTACGAAGTGATTAATTTCTT
TCTCAGCAAACCTCCGGGAGGTTCCAGAATGAGTTCTTCTGACAGGTTGTCTTCACTGGGAGCGTGGGGCCCCC
AGGCCCCACCAGCACCGTCTCTCCCTAATGAGGGGCCCTGCCGAGGCATCAGCTGCTCTGCTCAGTTAGTTTTTA
TTCCCGGGGTACCAAGCAGCTGCACAGTCGGTGCCTGGGAGGCACGTAGAGGCCCAGAGAGTCCCTGGGGGTTCT
GCTCTGACCGTGTGGGTGGTGATCCTTGTGAGGATGTACAGTCCTTGCTCCCACCCCATCCGGGATGGCCGCCTG
TCCCTGACTATTGAGTCCTGTTGTTGTAAGCCAGGCATGGAGGGCTCCTGCCCTTCTGCTGAGCCACAGCCCATT
GCAGCACTGTGCTGGCCAGACTTCAGCTGCCTTGGGAACCTGAAGCCCTGCCACTGTTGCTAGTCAGGGGCTTGGT
TCTCCCACTTACACTGTTGACATCTATTTTCTGAAGTGTGTTTAAATTATTCAGTGCTAATCATTGTTTTTCTT
TTGTAAATGTTGATTGAGAAAAGGAAAGCACAGGCTAAGCAGTTGAAGGTTCCCCACCATTGAGTGAGAGCAGAA
CCCCCATTTCCCAGCCTCTGCTGGTAGCATGTGCGAGTTTCCATGTGTTTTCAGGATCTTCGGGCTGTGCTTAGAC
AGGTTAATGAAGAACACTTCTCAACAGTTTCCTTTTTTGTTCCTTTATAATTCACTAAAATAAAGCATCTATTA
GTGTCTG

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FIGURE 4339

MAARCSTRWLLVVVGTPRLPAISGRGARPPREGVVGAWSRKLSVPAFASSLTSCGPRALLTLRPGVSLTGTKHN
PFICTASFHTSAPLAKEDYYQILGVPRNASQKEIKKAYYQLAKKYHPDTNKDDPKAKEKFSQLAEAYEVLSDEVK
RKQYDAYGSAGFDPGASGSQHSYWKGGPTVDPEELFRKIFGEFSSSSFGDFQTVFDQPQEYFMELTFNQAAKGVN
KEFTVNIMDTCERCNGKGNPGTKVQHCHYCGGSGMETINTGPFVMRSTCRRCGGRGSIIISPCVVCRGAGQAKQ
KKRVMIPVPAGVEDGQTVRMPVGKREIFITFRVQKSPVFRRDGADIHSDLFISIAQALLGGTARAQGLYETINVT
IPPGTQTDQKIRMGGKGIPRINSYGYGDHYIHIKIRVPKRLTSRQQLILSYAEDETDVEGTVNGVTLTSSGGST
MDSSAGSKARREAGEDEEGFLSKLKKMFTS

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FIGURE 4340

ATGGTGGACAAGAACTGGTGGTGGTTTTTCGGAGGCACAGGTGCCCAGGGTGGCTCCGTGGCCCCGCACACTCCTG
GAAGATGGGACATTCAAGGTTTCGAGTGGTGACCCGAAACCCTAGGAAGAAGGCAGCAAAGGAGCTGAGGCTGCAA
GGTGCAGAAGTAGTGCAGGGAGACCAAGATGACCAGGTCATCATGGAGCTGGCCCTGAATGGGGCTTACGCCACC
TTCATCGTGACCAATTACTGGGAGAGCTGCAGCCAGGAGCAGGAGGTCAAGCAGGGGAAGCTGCTCGCTGATCTG
GCCAGGCGCCTGGGCCTCCACTATGTGGTCTACAGCGGCCTGGAGAACATCAAGAAGCTGACGGCAGGGAGATTG
GCCGCCGCGCACTTTGACGGCAAAGGGGAGGTGGAGGAATATTTCCGGGACATTGGCGTTCCCATGACCAGTGTG
CGGCTGCCCTGCTATTTTGAGAACCTCCTCTCCCACTTCTTGCCCCAGAAAGCCCCAGACGGAAAGAGCTACTTG
CTGAGCTTGCCACAGGTGACGTTCCCATGGATGGCATGTCCGTGTCTGACCTGGGTCCTGTGGTGCTCAGCCTT
TTGAAGATGCCAGAAAAATACGTCGGCCAGAACATCGGGCTGAGCACTTGACGGCACACGGCCGAGGAGTACGCT
GCCCTGCTCACCAAGCACACCCGCAAGGTCGTGCACGATGCCAAGATGACTCCTGAGGACTACGAAAAGCTTGGC
TTTCCCGGTGCCCGGGACCTGGCCAACATGTTCCGTTTCTATGCCCTGAGACCCGACCGTGACATCGAGCTGACC
CTGAGACTCAACCCCAAGGCCCTGACGCTGGACCAGTGGCTGGAACAGCACAAAGGGGACTTCAACCTGCTGTGA

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FIGURE 4341

MVDKKLVVVFGGTGAQGGSVARTLLEDGTFKVRVVTRNPRKKAKELRLOGAEVVQGDQDDQVIMELALNGAYAT
FIVTNYWESCSQEQEVKQGKLLADLARRLGLHYVVYSGLENIKKLTAGRLAAAHFDGKGEVEEYFRDIGVPMTSV
RLPCYFENLLSHFLPQKAPDGKSYLLSLPTGDVPMDGMSVSDLGPVVL SLLKMPEKYVGQNI GLSTCRHTAEEYA
ALLTKHTRKVVHDAKMTPEDEKLGFP GARDLANMFRFYALRPDRDIELTLRLNPKALTLDQWLEQHKGDFNLL

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FIGURE 4342

GACCAGAGGAGCGAGAGCAGCAAGAACCACACCCAGCAGCAATGTCAGCGGAAGTGGAAACCTCAGAGGGGGTAG
ACGAGTCAGAAAAAAGAAGCTCTGGGGGCCCTAGAAAAGGAGAACCAAATGAGAATGGCTGACCTCTCGGAGCTCC
TGAAGGAAGGGACCAAGGAAGCACACGACCGGGCAGAAAACACCCAGTTTGTCAAGGACTTCTTGAAAGGCAACA
TTAAGAAGGAGCTGTTTTAAGCTGGCCACCACGGCAGTTTACTTCACATACTCAGCCCTCGAGGAGGAAATGGAGC
GCAACAAGGACCATCCAGCCTTTGCCCTTTGTACTTCCCCATGGAGCTGCACCGGAAGGAGGCGCTGACCAAGG
ACATGGAGTATTTCTTTGGTGAAGAACTGGGAGGAGCAGGTGCAGTGCCCCAAGGCTGCCAGAAGTACGTGGAGC
GGATCCACTACATAGGGCAGAACGAGCCGGAGCTACTGGTGGCCCATGCATACACCCGCTACATGGGGGATCTCT
CGGGGGGCCAGGTGCTGAAGAAGGTGGCCAGCGAGCACTGAAACTCCCCAGCACAGGGGAAGGGACCCAGTTCT
ACCTGTTTGAGAATGTGGACAATGCCCAGCAGTTCAAGCAGCTCTACCGGGCCAGGATGAACGCCCTGGACCTGA
ACATGAAGACCAAAGAGAGGATCGTGGAGGAGGCCAACAAAGGCTTTTGAAGTATAACATGCAGATATTCAATGAAC
TGGACCAGGCCGGCTCCACACTGGCCAGAGAGACCTTGGAGGATGGGTTCCTGTACACGATGGGAAAGGAGACA
TGCCTAAATGCCCTTTCTACGCTGCTGAACAAGACAAAGGTGCCCTGGAGGGCAGCAGCTGTCCCTTCCGAACAG
CTATGGCTGTGCTGAGGAAGCCCAGCCTCCAGTTTATCCTGGCCGCTGGTGTGGCCCTAGCTGCTGGACTCTTGG
CCTGGTACTACATGTGAAGCACCCTATCATGCCACACCGGTACCTCCTCCCGACTGACCACTGGCCTACCCCTTT
CTCCAGCCCTGACTAAACTACCACCTCAGGTGACTTTTTAAAAAATGCTGGGTTTAAGAAAGGCAACCAATAAAA
GCCAGATGCTAGAGCCTCTGCCTGACAGCATCTCTCTATGGGCCATATTCCGCACTGGGCACAGGCCGTCAACC
TGGGAGCAGTCGGCACAGTGCAGCAAGCCTGGCCCCGACCCAGCTCTACTCCAGGCTTCCACACTTCTGGGCCC
TAGGCTGCTTCCGGTAGTCCCTGTTTTTGCAGTACATGGGTGACTATCTCCCCTGTTGGAGGTGAGTGGCCTGTA
AGTCCAAGCTGTGCGAGGGGGCCTTGCTGGATGCTGCTGTACAACCTTCTGGGCCTCTCTTGGACCCTGGGAGTGA
GGGTGGGTGTGGGTGGAAGCCTCAGAGGCCTTGGGAGCTCATCCCTCTCACCAGAAATCCCTCTAACCCCTTGGG
TGGGTTTGTCTCAGCCCCAGCTTATCTCCTCCTCCGCGCTGTGTAAATGCTCCAGCACTCAATAAAGTGGGCTTT
GCAAGCT

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FIGURE 4343

MSAEVETSEGVDESEKKNSGALEKENQMRMADLSELLKEGTKEAHDRAENTQFVKDFLKGNIKKELFKLATTALY
FTYSALEEEMERNKDHPAFAPLYFPMELHRKEALTKDMEYFFGENWEEQVQCPKAAQKYVERIHYIGQNEPELLV
AHAYTRYMGDLSGGQVLKKVAQRALKLPSTGEGTQFYLFENVDNAQQFKQLYRARMNALDLNMKTKERIVEEANK
AFEYNMQIFNELDQAGSTLARETLEDGFPVHDGKGDMRKCPFYAAEQDKGALEGSSCPFRTAMAVLRKPSLQFIL
AAGVALAAGLLAWYYM

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FIGURE 4344A

CGGCCTGGTCCGGGCCATGTCCGCGTGAGGACCCCGCCGCTGTGCGCGCTCCCGTTCCGGCCCTGGCCCCCTCTGC
 CCGGCAGCGCCGCGCACCATGGGCTCCATTCTCAGCCGCCGATCGCGGGGGTGGAGGACATCGACATCCAGGCG
 AACTCGGCCTATCGCTACCCCTCCGAAGTCCGGAACACTACTTTGCTTCGCACATTTTTTCATGGGAGGAGAGAAATTC
 GACACCCCCACCCTGAAGGTTACCTCTTTGGAGAGAACATGGATCTGAACCTTCTGGGCAGCCGCCCGGTCCAG
 TTTCCCTACGTCACTCCTGCCCCCACGAGCCCGTGAAGACGCTGCGGAGCCTGGTGAACATCCGCAAGACTCC
 CTGCGGCTGGTGAGGTACAAAGACGATGCCGACAGCCCCACCGAGGACGGCGACAAGCCCCGGGTGCTCTACAGC
 CTGGAGTTACCTTCGACGCCGATGCCCGCTGGCCATCACCATCTACTGCCAGGCATCGGAGGAGTTCTCTGAAC
 GGCAGGGCAGTATACAGCCCCAAGAGCCCCCTCGCTACAGTCCGAGACCGTCCACTACAAGAGAGGGGTGAGCCAG
 CAGTTCTCCCTGCCCTCCTTCAAGATTGACTTCTCGGAATGGAAGGATGACGAGCTGAACTTTGACCTGGACCGG
 GCGTGTTCAGTAGTCATCCAGGCTGTGGTGGACGAAGGAGATGTGGTGAAGTGACTGGCCACGCCACGCTG
 CTCTTGGCTGCCTTTGAAAAGCACATGGACGGCAGCTTCTCTGTGAAGCCTTTAAAGCAGAAGCAAATTGTGGAC
 CGGGTCAGCTACCTCCTGCAGGAGATCTATGGCATTGAGAACAAGAACAACCAGGAGACCAAGCCCTCGGACGAC
 GAGAACAGCGACAACAGCAACGAGTGTGTGGTGTGCTGTCCGACCTGCGGGACACGCTGATCCTGCCCTGCCGC
 CACCTGTGCTCTGTACCTCCTGCGCCGACACGCTGCGCTACCAGGCCAACAAC TGCCCCATCTGCCGGCTCTTT
 CCGGGCCCTCCTGCAGATCCGGGCGGTGCGGAAGAAGCCAGGAGCCCTGTCCCCCGTGTCTTCAGCCCCGTCTT
 GGCCAGAGCCTGGAGCATGATGAGCACTCTGTCCCTTTAAAAAATCAAAGCCGCACCCCGCTCCCTGGCCAG
 CAAGAAACCTAAAAGGGAACAAACTCTGACAGCGTCCACCTGGCTACGAGCCCATCTCGTGTCTGAGGCGCT
 CAACGGCCTCCGGGCTGTCTCCCGGCCATCCCTCGGCCCTCTTTATGAAGAAATCACCTATTAGGCATCTC
 GGACGGCCTGTCCAGGCCAGCTGTCCCTCGCGGCTATCGACCACATCCTGGACAGCAGCCGCCAGAAGGGCAG
 GCCGCAGAGCAAGGCCCCCGACAGCACCCCTACGGTCCCGCTCTTCCCCCATCCACGAAGAGGATGAGGAGAAGCT
 CTCCGAGGACGTGGACGCCCTCCCCACTGGGTGGCGCAGAGCTGGCCCTGCGGGAAAGCAGCTCCCCTGAGAG
 TTTATAACAGAAGAGGTTGATGAGTCGTCGTACCCACAGCAAGGGACCCGAGCAGCTTCCATTGAGAATGTCTT
 GCAGGACAGCAGCCCCGAGCACTGTGGCCGAGGCCACCTGCTGACATCTACCTGCCAGCCCTGGGGCCCGACTC
 CTGCTCTGTTGGTATAGACGAGTAAGCCGGTACGTGACCTCCCAGACGCGCTTCGGGGGCTCTGACGCGCTCCT
 TGGAGAGAGGAGCCCTCCCCTGCTCTCTGGCGGGGGTTCCTTCTGGTTTTTGGGTCTTCGTCCGCATCCGCATCT
 TCCAGGGGGCCCTGGATTCCGAATCCAGAGCTCTCCAGTGGCTGCTGCACCTTCCCCAGAAAGTGGCCTCCTGG
 GGGTCTGACTTTTCGGGGCCAGAGGTCTCTCCATCTGGACTAGGCGGCCGTCAGGCTCTTCTCCAGCCTTGA
 GGGGCCCTGGAACAGTCCCAGCCAGGCAGGGAGACAGACACAGCCAGGTGCGCCAGAGCCACTGTCCACTGCG
 GGAGGCAGGAGCTTGAGGGATGAGGGCAGCACCGTGGAGGGAACCCAGGGAGACATGGGGTGAGCGTCCCAAGG
 GGAGAGGCCTGGGCCTGGCCTTGTTCGGATGGTCCACCATGAGTTCGCATCGGTCTTGACGAGACACGTTAG
 GACGCTCAGCAGGTCCACTCCCGTGTTCGGTCTGGCTTTAACAATTATGGGGAAAGAATGCGCCCCGATTGG
 GAGAGCCCCCTGGATCACGTCTTCCCAAGCTCAGTCCCTGTCTCTTGGAGGGAGTCCGTCTCGAGGGGCCCTCTG
 GTGCCAGGGGAGAGTATCTTGCGTCTGTCTGAGGGCGTCCGCTCACACAGCCACCTGCTCCCCCGCTCCCTC
 CTTCCCTTGTACGATGGCCACCGTGGGCCTGGCATCACCATGGGCCTGGCACACAGTCCCTCGTGGGCTGCCTT
 TGTGCCATGAGCCCACTGCTGCCGACTCACCTGTCCCTCCCAGTACTGGAACCTTCTGGAACACCAGCACTAAAA
 GATAGGAGGCCCTGTGAGGTTGGCATCCCCATCCCCCAAGAGGCGCCCTCTACCAGGGTGGCCAGGTGAGT
 GTTTTACAGAAGGCGGCTCTGTCCAGGCAGTGGTTCGCACCTATAAGCCCCGTACTTTGGGAGACCGAGGGGATA
 GATCACTTGAGCCCAGGAATTCAAGATCAGTGTAGAAAACATAGACCCCTCTCTATGAAAAATAAAAAATTGGC
 TTGGGCGTGGTAGCTTGTGCTGTGGTCCAGCTACTCAGGGGTGCTGAGGTGGGAGGATTGCCGGAGCTGGGGA
 GGTCAAGGCCCACTCCAGCCTGAGACGCTGTCTCAATAAAAAAAAAATACACACACACCCACCCACCCACTCCAGC
 CTGAGACCTGTCTCAAGAAAAAAAAAATACACACACACACACACACACACAGGGGGAGAGAGAGAAG
 GCAGCTCCAGGAGTGCCACCAAAATGTAGGCAGACGGATTGGGGACCCCTCTGCCCTTCCAGAGGGTCTTGGCACA
 CAAGCTGCGTGCAGCTCTGGTCTGCCGAGGCCATGCAGCCTGCTGGGAGGTGCTGGCCGGGGGTGCAGGCTCT
 AAGAGGCCCTTTCCCTTGGGTGGACTTGAGCCGGGTGAGGGAGAACTTCGCTTCTTTTACTGCGCTCTGCATT
 CCCATGAACCTCTGTCTTCTTGGAGCCAGCGAGTCCCTCTGTTGACCCCTGTCTGAGCCATTATACCCCTAGAT
 TGAACAGTCAGCACCTTTAGACGGCCCCGGCTGCGCATCGGTGGAAGGTGCCGTGCGAATGTCACGATTAG
 GTCAAGCTTCCGGAGCTGGGGAGTGAGGTGTGATCTAGAACAGGGCTCACAGCCTCGGAAACCTGCTCTCGCCG
 CGCCCCCGAAGAAAATAGACGCCCTTACCAGGAGAGTGGGGCTGGGCCGTGCTGCTGGGAGCCATGTGTCTAG

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FIGURE 4344B

GGCTGGTGGCTGGGTGTCAGGCAGCCCTGAGGCCATGCTGGCCCCGTCCCAGGCTCTGCACCAGCACCATTGCCC
AAGCCCCAGGGACGCCAGACCCATCTGGGGACAGCGCCCGGGCGGCTCGTGCAGGCCACAGTCTGGGCATTGGGG
CTCTGTGGGAGGCTCCTCTCTTTGCCCTTGACGTAGCCATCCGGGGGGCTACTCTGAGCACGGGCTTGTTCTCAGCC
AGGGCCGCTCCCCACCCCTGCACCCTGGGTTGACCGAGTTCCACCCTAAGCCAGCCGTAAGAACCTTGCGAGGAC
AGTGGCTGGCCACATCCCAGGAAACCGGAACAGGGCAAGGGCAGGAGGCCAGAGGGCATCCACCGCGGTGCCG
TGTCGCGCTCTGACTCGGGGCTGCAGATCTGCTGTGGGTGTCCGGGGATCTGGGATCGTCTGTCCCAAGAGGGAC
ACAGCGTATTTGGCACAGTTAGGGAGTCCCCGGGGCCTTGGTGTGCTCACATCTGAGTGAATGCTGTTGTGGCCA
CAGGCGGCGGGAGTGGGGGTGCTGGATGGCCCAGCCCTCTGGGGCTCCAGATCGGTAGGAGCGGGTGGCGTGGC
ACCAGGCATCCGAGTGTGACCTCCTCCCTCTGCTCCCACCTGCAGGACGGCCACCTCCATGGAGACGGCCAC
GGCCTCGCCACCACCAGCCCCACCTGGCCTCCACTTGGTGGCCCCAGCCCCGATCCAGCGCCGCCGAGCTGACC
CCACTCTGAGAGCCTGGCCGAGCTGGCAGCATGGAGCCCTCGGCTCCCCAGACTTTGCCGAGGGGCTGCTCCGGA
CCCCGTTGTGAGCCGGCCTCCTGTCTGCATGCCCCCTGTGGCCACCAGGCTCCGAGGGGCGGTGGTGACTCTTGA
TCAAAGAGCACAGTGAAGTGTCCCTTCTGAGTCTCCCTTTTCTACAGTTGATATATTTGTAAGTGGTACAAGATG
AAGGACAGCAGCTTTCCATCCCTAGTTTACAGAGCCCCGTTCCCCAGGGTCTGTGGGCTGAGCGGCTGGGGCTGG
GGCTGCCCACGTGTGGCCTCCGCTGGCTCTGCCTGCTCCTGCAACAGTGCGGTCCCTGCCCGGAGAACTCAGGAG
GCCTGCAGAAGAGAACTGATTGGTGGTGAAGCACCATCTTACAGATGTTTACAGGGCAGTGGGGGGCTCCAGGC
ACGGTCAATGAAGGAAACAGTGCCTGTCCACCCACCCTGCGTGTCACTGTGGCGGCTGGCTGTGCTGCTTTTT
GTCTCTGCCGTGTTTGGCGGGCTCAGTGCCCTCCCTGGTGCCTGTGCGCTGGGGCCCTCAGTGCTCGGGGCT
TGGGGTGCATGGGTGCCGCCCTGGGCAGCTAGAGTGTCTCAGCCGGTGTGGGCTGGCCGAGGGGCGGAGGCA
CAGCTGCTTCCAGCAGCCAGCATTAGTGGCCTTGTACCAAGCTCCACACCTCCTCCTGGTGTGGCTTTGGTG
ACATACAAGGCCCTCCAGGTGCAGGGGCTTCTGTTTGGCAGGGCCCTGCCAGGGAGGACCTGGTGGCCTCCTC
ATTCTCTTTTGGCATTGGAATGTCCCCTTGCACTTCTCTCTTTTTTTTTTTTTTTTGGATGGAGTTTCACTC
TTGTGCCCCAGGCTGGAGTGCAGTGGCTCAATCTCGGGTCACTGCAACCTCCGCCTCCCGGGTTCAAGTGATCGT
CCTGCCTTAGGCTCCTGAGTAGCTGGGGATTACAGGTGCCTACCAGCATGCTCGGCTAATTTTTTTTGTATTTTA
GTAGAGAAGGGATTTACCATGTTGGCCGGGCTGGTCTCAAACCTCCTAAGGTCATCCACCTGCCTCGGCCTCCCA
GAGTGCTGAGATTACAGGCGTGAGCCTCCGCGCCCGCCCCCTTGCACTTCTCTCTGATTGGTTTGTCTGTCT
CAGGCTTCTGTGGCAGGACTGGCCCAGGGAGGAGGAAGCCAGCAGCACACCTGGGGAATGGGGTCCCGGCCGGGA
GGCTTGGCCTCTGGGCGACCTCGTCTGTTTTTTTTTGGTTTGGTTTGGTTTGGTTTAAAGGTAAACCTCCTGGGC
CGCAGATGGCAAAGGGAGTGCCTGGGCTGGTGACCCAGGGCTGGATCCACCCCTGCGGAGCCCTGGGGCAGGCA
GGTGTCTGCTGCTACCTGGCTCTGGAGGGCTGCCCTGCAGCTGGGCTGGGGACAGGTGGGCTGTGGGGCAGCT
CAGTACCTCCCTGAGGCTCACGGTGGCTCCGAGCATGAGGTCCGCCTCCTGGGCGAGACCCAGCAGTGGACAGC
ATGGTCTCACACCCAGCTCCCTGCACACCCAGGCCAGCCACCCCTCCCGCTCGTGACAGGCACGCAGATGCGC
TCACACGTACACACACACAAATGCACGCCCCTTGACATGCTCACGCACATGTTTACACATGCACACTCACGCT
CACACATGCTGTACGCATACACACACGCACATACTCCTGCACATGTTCCCATGCATGTGTGTGCACTCGGACCG
AGCATCTCCACGCACCTCTACCCACCCCAAGCACCTCTCTCCCCCATGCACCTCTCCCCAACACACACACA
GCCCCCTGCACCGCCCGCCCCCGCCCCACCAAGGCCCCAGCCTCTGGCCATCAGTCTGGTGCCAGAGCTTTG
CGTGAAGTTCGGGCGCAGAGTGGCCCGCTGGGACTCCCATGTGCTGCCGTCTGATGTGCTCAGATGGGCTCATC
GTTGGTTCTGTTTTTACTGTATATTTATAGTAATAAAATCATGCAGC

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FIGURE 4345

MGSILSRRIAGVEDIDIQANSAYRYPPKSGNYFASHFFMGGEKFDTPHPEGYLFGENMDLNFLGSRPVQFPYVTP
APHEPVKTLRSLVNIRKDSLRLVRYKDDADSPTEGDGKPRVLYSLEFTFDADARVAITIYCQASEEFLNGRAVYS
PKSPSLQSETVHYKRGVSQQFSLPSFKIDFSEWKDDELNFDLDRGVFPVVIQAVVDEGDVVEVTGHAHVLLAAFE
KHMDGSFSVKPLKQKQIVDRVSYLLQEIYGIENKNNQETKPSDDENS DNSNECVVCLSDLRDTLILPCRHLCLCT
SCADTLRYQANNCPICRLFPGPPADPGGAEEARSFVPRVLQPRPGPEPGA

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FIGURE 4346

AGACGCCGGGGGCGGACGGGAGGACCGGAGGACCGAGGACAGAAAGATTGGTGGACAGGAGCAGCGGCCGGTGGG
GAGGGCGCTCGGCGGCGGCCTGCGGCCATGGCCACCGTGATGGCAGCGACGGCGGCGGAGCGGGCGGTGCTGGAG
GAGGAGTTCCGCTGGCTGCTGCACGACGAGGTGCACGCTGTGTTGAAGCAGCTGCAGGACATCCTCAAGGAGGCC
TCTCTGCGCTTCACTCTGCCGGGCTCCGGCACTGAGGGGGCCCGCAAGCAAGAGAACTTCATCCTAGGCAGCTGT
GGCACAGACCAGGTGAAGGGTGTGCTGACTCTGCAGGGGGATGCCCTCAGCCAGGCGGATGTGAACCTGAAGATG
CCCCGGAACAACCAGCTGCTGCACTTCGCCTTCCGGGAGGACAAGCAGTGGAGCTGCAGCAGATCCAGGATGCC
AGAAACCATGTGAGCCAAGCCATTTACCTGCTTACCAGCCGGGACCAGAGCTACCAGTTCAAGACGGGCGCTGAG
GTCTCAAGCTGATGGACGCGAGTGATGCTGCAGCTGACCAGAGCCCGAAACCGGCTCACCACCCCGCCACCCTC
ACCCTCCCCGAGATCGCCGCCAGCGGCCTCACGCGGATGTTGCCCCCTGCCCTGCCGTCCGACCTGCTGGTCAAC
GTCTACATCAACCTCAACAAGCTCTGCCTCACGGTGTACCAGCTGCATGCCCTGCAGCCCAACTCCACCAAGAAC
TTCCGCCCAGCTGGGGGCGCGGTGCTGCATAGCCCTGGGGCCATGTTTCGAGTGGGGCTCTCAGCGCCTGGAGGTG
AGCCACGTGCACAAAGTGAGTGCGTGATCCCCTGCGCTCAACGACGCCCTGGTCTACTTCACCGTCTCCCTGCAG
CTCTGCCAGCAGCTCAAGGACAAGATCTCCGTGTTCTCCAGCTACTGGAGCTACAGACCCCTTCTGATCAGCAGCAC
CCAGGAGCTTGTCTCCAGGAAGGCGGCCCGTCCCCTACTCATACCCACCACAGAGCACCAGCCAGTGCCAACGC
CAGGCTGCTATTTATCTCCCTATCCCACCCCTACCCACCTAACACATTGCACTGCCAGGAATGGACACTGGA
AGTGCCAGGAGGAAGGAAGGCTGGTTTGGTGGGGTAGTGGGGAGGTCAGGGAGGCGGGGCCAAGGGTGTCCCACA
TTCCCAACACCGCCCTCTGATCACCATGGGAATCTTTGGACTCAGGACAGGGCCAGGTGCAGGGCTCTCCCTCCT
CTCCCTTTCGCTGTCCCTCCCCCTGGAGGGCATGGTGTGCGGGGGTGGCACTGAGCTATGAGTCCCGGGGATGG
TGAGGAACGCCACAGACAGAGCCACCCTAGGAGTGAGTATAGTGCTGGTGACTGTGTTTCATAGCCCCAGTCCAG
GGCTGTCTAAGAAATAAAGATCATCAGACTCCAAAAAAAAAAAAAAAAAAAA

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FIGURE 4347

MATVMAATAAERAVLEEEFRWLLHDEVHAVLKQLQDILKEASLRFTLPGSGTEGPAKQENFILGSCGTDQVKGVL
TLQGDALSQADVNLKMPRNNQLLHFAFREDKQWKLQQIQDARNHVSQAIYLLTSRDQSYQFKTGAEVLKLMDAVM
LQLTRARNRLTTPATLTLPEIAASGLTRMFAPALPSDLLVNVYINLNKLCLTVYQLHALQPNSTKNFRPAGGAVL
HSPGAMFEWGSQRLEVSHVHKVECVIPWLNDALVYFTVSLQLCQQLKDKISVFSSYWSYRPF

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FIGURE 4348

GTCATGGCGCCCGAGGAGAACGCGGGGACCGAACTCTTGCTGCAGAGTTTCGAGCGCCGCTTCCTGGCGGCACGC
ACACTGCGCTCCTTCCCCGAGAGCTTAGAAGCAAAGTTAAGAGACTCATCAGATTCTGAGCTGCTGCGGGAT
ATTTTGCACAAGACTGTGAAGCATCCTGTGTGTGTGAAGCACCCGCCGTCCGTCAAATATGCCCGGTGCTTTCTC
TCAGAACTCATCAAAAAGCACGAGGCTGTCCACACAGAGCCTTTGGACGAGCTGTATGAAGCGCTGGCGGAGACC
CTGATGGCCAAGGAGTCCACCCAGGGCCACCGGAGCTATTTGCTGCCCTCGGGAGGCTCGGTACACTCTCCGAG
AGCACGGCCATCATCTCCTACGGTACCACAGGCCTGGTCACATGGGACGCCGCCCTCTACCTTGCAGAATGGGCC
ATCGAGAACCCGGCAGTCTTCACTAACAGGACTGTCTAGAGCTTGGCAGTGGTGCTGGCCTCACAGGCCTGGCC
ATCTGCAAGATGTGCCGCCCCCGGGCATAACATCTTACGCGACTGTCACAGCCGGGTCTTGAGCAGCTCCGAGGG
AATGTCTTCTCAATGGCCTCTCATTAGAGGCAGACATCACTGCCAAGTTAGACAGCCCCAGGGTGACAGTGGCC
CAGCTGGACTGGGACGTGCGCAGCGTCCATCAGCTCTCTGCCCTTCCAGCCAGATGTTGTCATTGCAGCAGATGTG
CTGTATTGCCCAGAAGCCATCATGTGCTGGTGGGGTCTGCGGAGGCTGGCTGCCCTGCCGGGAGCACCAGCGG
GCTCCTGAGGTCTACGTGGCCTTTACCGTCCGCAACCCAGAGACGTGCCAGCTGTTACCACCCGAGCTAGGCCGG
GCCGGGATCAGATGGGAAGTGGAACCTCGTCATGAGCAGAACTGTTTCCCTACGAAGAGCACTTGGAGATGGCA
ATGCTGAATCTCACCTGTAGGACTCACACACGACTCCAACGGGATTGTGAGAATCAAGTCACTCTCATGGGAAG
AATTTTTATATGGGAAAGCGGATAAACTTTTATTGGACTGGAATGTTGGAGAATGTTAATTTCCAAATCAGGA
ACCACAACTGCCCTCTAATAAGACATCGGCTATCTAAGCGTGTGGGTGCCCCCTTTCTGCCAGCAGTTCTGGTT
CTTAAGAAAATCACCATAAATCAGACATGAAAATTCTGGCTCCAAAAATAGCATTTTCTTTGTGCAAAATAAAAC
GTGTGTATCAAGTATGATGTTCCCCAACGTGGACACACTCAGTTCCTCACAAGCCAAGCCCACTGCAGCTGCC
ACATCCCTGGGCTTACGGTGCAGCAGGTGCTTTTTTCAAGACAGGAATCAAATGTTAGGAACACGGCAGAAAGG
GGACACCTGGAGACCAAACGCAGGATGAGGAGTTCTGCAGAGGTACAGGGAAGTCACAGAACAGTAATACGCTA
GCAGGGGCATGGGGCGTGAAGAACAGAAGAAGAGAGGAAGCGTTTCCAAGCCTCCAGAGAAGAAATCAAGGCCAA
CCAAAGCTTCCCGGTACAGAACCAATTCTTTTACCAGGCAGTACCACTGCTGTCATTTAGCTTCTGGCCACT
GGGAGGTGCTGCTCGAAAGGGTTTGCCCTGAGACTCCAAGAAGAAGCTGCGGGAAGGACAGCAGGGGTCTGGGG
TTTTAGCCTCTGGCCCAGGAGTTATGTGTCCATAACCAAAGGGAGCACAGTCTGCACCCAGCTCTCATCCCATCG
GAGCTGCTGCGACTCCCGCAGGTTCTTCGGAAGTGGTTTAGCTTGCCCGCAGGATCAGGAAAGTTTGAGAAAAG
CATCTGCAAAAAATAAAGAGCAGAGCTTACCTC

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FIGURE 4349

MAPEENAGTELLLSQSFERRFLAARTLRSFPWQSLEAKLRDSSDSELLRDILHKTVMKHPVCVKHPPSVKYARCFLS
ELIKKHEAVHTEPLDELYEALAETLMAKESTQGHRSYLLPSGGSVTLSESTAIISYGTTGLVTWDAALYLAEWAI
ENPAVFTNRTVLELGSGAGLTGLAICKMCRPRAYIFSDCHSRVLEQLRGNVLLNGLSLEADITAKLDSPRVTVAQ
LDWDVATVHQLSAFQPDVVIADVLVYCPEAIMSLVGVLRRLLAACREHQRAPVYVAFVTRNPETCQLFTTELGRA
GIRWEVEPRHEQKLFPEYEEHLEMAMLNLT

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FIGURE 4350

GGCACGAGGGAGAGATCGTCCAGGAGGCGGTGTTGATGCGGCAAAGGGCAACAGGAAGGGCATTAGGACTTGAAA
TCGAGAGACGCACGCAGGGGAGGGAGTCAGTGTGCGAACCTGGTAGGCCCTGGGAGAACTCCGGCTTTTCGTCTGC
GTGAGCTGGAGAAGAGCCGAAGGTTTCTGCGCACAGCACGGACCTGCGTGCCCTCAGCTTTAAGGAAATCACCGTG
GCCGCCGCTGTGAACGCAGAGAAGGGCGCGAGCGTGGGAGCAGGAACCCAAGGCGGTGGGAAACGGTGGGGCTTT
CTGAGTGTATTGGAAAGTAGAGCCACAGATCTGCTGCAGACCAGAAAGGGGCGCGAGAAAGAGCGGACAGAGGC
AGACGCCGGGGCTGGCGGCGATGGAGCAGCAGTCGGAGGACGCGGAAGGCCTGCGAGAGTCGCCCCGCGGCCAGC
GCCGGCCTTCGGGTCCACCTTGCGGGTGATGTTGTGCACGTAGGGGCACGTGTTGCAGGCGAAGCGGTGGCAGC
GTTGTCCCTCCTCCACGATCAGCCCGTTCCCGCAGCCGGGGCAGAACAGCAGCATGGTCTCGAACTCCGCAGGCT
CCAAC TCCCGGCAGCTCCCACTGCCGCTCAGCGCCGATGCGCCGCCCGCTCGAGCTCACATTGGTCTTGGCAGC
CTTCCCGCCACACCAACCAACCAATAGACAGGGCGATTCTGCGCTCCCGGCCCTGCTGCAGGCTGTCTCGCACTT-
GTCATTGGTCACTGCAGCCGCCCCACCCCCCGGCGCGCCAGTGGCTGGGCGGCCCTCGCTGGGGCGGGCCGCAG
TTCCTGCGCGTGC GCGCTTGGCCTCCCTAGTGC GGCTGGCAGTGC GGGCAGAGCCCGGCTGAGAGGGGCGGGCC
TGGAGGAGACGGAGGCCGCGGGTGGGCCCAGGGCGCAAGAGGAAGATGAGGACGAAGAAGAGGCGCTGCCGCACT
CCGAGGCCATGGACGTGTTCCAGGAGGGTCTGGCTATGGTGGTGCAGGACCCGCTGCTCTGCGATCTGCCGATCC
AGGTTACTCTGGAAGAAGTCAACTCCCAAATAGCCCTAGAATACGGCCAGGCAATGACGGTCCGAGTGTGCAAGA
TGGATGGAGAAGTAATGCCCCTGGTTGTAGTGCAGAGTGCCACAGTCCTGGACCTGAAGAAGGCCATCCAGAGAT
ACGTGCAGCTCAAGCAGGAGCGTGAAGGGGGCATT CAGCACATCAGCTGGTCTTACGTGTGGAGGACGTACCATC
TGACCTCTGCAGGAGAGAACTCACGGAAGACAGAAAGAGCTCCGAGACTACGGCATCCGGAATCGAGACGAGG
TTTCCTTCATCAAAAAGCTGAGGCAAAAGTGAGCCTCCAGACAGGACAACCCTCTTCATCACTGGTGGCTGAGCT
TTTTCCCAGCAGGAATGGGTCCCTCGAATCATCGTGCCCTTTTCACAGAAAGGACGTTGTGGTGGCCTCACCCAG
GCATGCCCAACAGTAACTGTCAGCATAAACCTGGGGGCCCTCAGGACTAGGACAGGGGTGAGCCAGTGCTCCCTCC
TTTCATGTACTTGGCCTGAGACTGACCTCTCCCTAGGTCCAAATGCCCTAGTCACATGGCAGACCCACGGCCTGG
CCCACTGTATAAAATAAACCTGTTTGCTTCTTAAAAAAAAAAAAAAAAAAAAA

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FIGURE 4351

MDVFQEGLAMVVQDPLLCDLPIQVTLEEVSQIALEYGQAMTVRVCKMDGEVMPVVVVQSATVLDLKKAIQRYVQ
LKQEREGGIQHISWSYVWRITYHLTSAGEKLTEDRKKLRDYGIRNRDEVSFIKKLRQK

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FIGURE 4352

CCTGGGCCCCCATGCCGTGCAGCTCGCACATATGTGGGGCAGAGCAGCCACCCTGCCCCAGCAGCAGCCGTCCA
TCGTGAGACGTGATCATTTCCTGAGGCCTCGAGTGTGTCAGGGTGTTTGTGCCTCATAACAACCCACAGGATGGT
CACCCCCGCTTTGCGAGATGAAGAAACCAAAGCAGTTTTTGCCGACGGATGGGGCAAAGAAGCAGCGACCAGCTAG
AGCAGGGCAGCCACACAGCTCGTCCGACGCAGCCAGGCACCTGCAGAGCAGCCACACAGCTCGTCCGATGCAGC
CCAGGCACCTTGCCCCAGGGAGCGCTGCTTGGGACCGCCACCCTCCGGGGCCATACCGCAGCATCTATTTCTC
AAGCCCAAAGGGCCACCTTACCCGACTGGGGTTGGAGTTCTTCGACCAGCCGGCAGTCCCCCTGGCCCCGGGCATT
TCTGGGACAGGTCTTAGTCCGGCGACTTCCTAATGGCACAGAACTCCGAGGCCGCATCGTGGAGACCGAGGCATA
CCTGGGGCCAGAGGATGAAGCCGCCCACTCAAGGGGTGGCCGGCAGACCCCCGCAACCGAGGCATGTTTCATGAA
GCCGGGGACCCGTGTACGTGTACATCATTACGGCATGTACTTCTGCATGAACATCTCCAGCCAGGGGGACGGGGC
TTGCGTCTTGCTGCGAGCACTGGAGCCCCGGAAGGTCTGGAGACCATGCGTCAGCTTCGCAGCACCCCTCCGGAA
AGGCACCGCCAGCCGTGTCTCAAGGACCGCGAGCTCTGCAGTGGCCCTCCAAGCTGTGCCAGGCCCTGGCCAT
CAACAAGAGCTTTGACCAGAGGGACCTGGCACAGGATGAAGCTGTATGGCTGGAGCGTGGTCCCCCTGGAGCCCCAG
TGAGCCGGCTGTAGTGGCAGCAGCCGGGTGGGCGTCGGCCATGCAGGGGAGTGGGCCCCGAAACCCCTCCGCTT
CTATGTCCGGGGCAGCCCTGGGTGAGTGTGGTCGACAGAGTGGCTGAGCAGGACACACAGGCCTGAGCAAAGGG
CCTGCCCAGACAAGATTTTTTAATTGTTTAAAAACCGAATAAATGTTTTATTCTAG

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FIGURE 4353

TTCCCATCCGCAACCAGCAAGAGAGGGGCCCTGTGCCCCAAACGCGAACCGTACGGCTCCAGACAGCACCCGCGGAAC
TCCGTGGCTTCCAGAAGGCCCGCGCCTGCGCATTCCGCTGCCTGCGCCTGCGCCTGCGCCTGCGCCGTTCTCCC
GGCCGCCGCTTAGCACCTCCTCCGGACGGTGTGCGCGAAGTCTCGCGAGCCCGGAGCGTGGCACGTGGGCCCCC
TCCGCTTCCGGCTCCGTCTCTCTGCCCCCTCCGCCCCGGCCCCACGGCGGGATGCGGGACAACAC
CAGCCCCATCAGCGTGATTCTGGTGAGCTCGGGGAGCAGGGGCAATAAGCTGCTGTTTCAGGTACCCCTTCCAGAG
AAGCCAGGAGCACCCGGCGTCCCAGACAAGTAAGCCGCGTAGCAGATACGCTGCCAGCAACACGGGCGACCATGC
TGATGAGCAGGACGGCGATTCCAGGTTTTCAGATGTTATTCTGGCAACAATTTTGGCAACCAAGTCTGAAATGTG
TGGCCAAAAATTTGAAGTGAAGATTGATAATGTGCGATTGTGTTGGGCACCCAACACTGCTACAGCATGCTCTGG
GCAGATCTCCAAAACAGATCCTTCCCCGAAGAGGGAAGCACCTACTATGATTCTTTTTAATGTGGTGTGTTGCACT
GAGGGCCAACGCAGACCCGTCAGTGATAAACTGTCTGCATAACCTGTCCCGTCGTATCGCCACCGTGTCTGCAGCA
CGAGGAGCGCCGCTGCCAGTACCTCACCCGGGAGGCCAAGCTGATCCTGGCGCTCCAGGATGAGGTGTCCGCCAT
GGCTGATGGAATGAAGGTCCTCAGTCCCCATTCCATCACATCCTGCCAAGTGCAAGCTGGCCAGGGACCTCAA
GGAAGCTTATGACAGCCTGTGCACGTCGGGCGTAGTTCGGCTTCACATCAACAGCTGGCTGGAGGTGAGCTTCTG
CCTGCCCCACAAGATCCACTATGCGGCCTCCAGTCTGATCCCCCAGAGGCCATCGAACGGAGCCTGAAAGCCAT
CCGCCCCCTACCATGCCCTGCTGCTGCTCAGTGATGAGAAGTCTTGCTGGGTGAGCTTCTATTGACTGCTCCCC
TGCCCTAGTGGGGTGATCAAGACCACATCTGCTGTGAAGAACCTGCAGCAGCTAGCCCAAGATGCGGACCTGGC
CTTGCTGCAGGTTTTCCAGCTTGCAGCTCATCTGGTGTACTGGGGCAAGGCCATCATCATCTACCCGCTGTGTGA
GAACAACGTCTACATGCTGTCTCCCAATGCCAGCGTATGTCTGTACTCCCGCTGGCCGAGCAGTTCTCCCACCA
GTTCCCATCTCATGACCTGCCGTCCGTTCTTGCCAAGTTCTCCTTGCCGGTCTCCTTGTGAGAATTTAGGAATCC
CCTGGCCCCCGCTGTGCAGGAGACCCAGCTCATCCAGATGGTGGTGTGGATGCTGCAGCGCCGGCTTCTCATCCA
GCTGCACACCTATGTCTGCCTGATGGCCTCACCCAGCGAGGAGGAGCCCCGTCCGCGAGAGGACGACGTCCCCCT
CACTGCCCCGGGTGCGCGGTGCGAGCCTCAGCACGCCAACGCCCTCAGCTTTGGCTCCCCAACCCAGCAGCGATGA
CATGACCCTCACAGCCCCAGCATGGACAACCTCCAGCGCAGAGCTACTTCCCAGCGGGGACTCGCCACTGAACCA
GAGGATGACGGAGAACCTGCTGGCCAGCTGTGCGGAGCATGAACGCGCAGCCATCCTCAGTGTACCCGCAGCCCAG
AACCCTGAGGACCTCCGCATGTTTGCCAGGCTCCTTCACTACTTCCGCGGCCGCCACCACCTGGAGGAGATTATG
TACAACGAGAACACGCGGGCGCTCCCAGCTGCTCATGCTGTTTGACAAGTTCCGCAGCGTGTGTTGGTGACCACC
CACGAGGACCCTGTCAATTGCCGTCTTCCAGGCTCTGCTCCCCTGAGCCCAGGCGGAGGGCGGAAGGCTGCTGGGG
TGCGCAGGTGGGCGCTCGCGTCTCCCCACCCAGGGCTCCCCCGTGCTGAGGCTGAGCCCTCTTGGCCCTGAGG
CCTGGCATTGGGTGGATGCGGGCTGGCCGTGGCCAGTGAAGCCTGCAGAGCCCCGCTGTCTTGGCCCTGGTGG
TTCCGCTGTGGGGCTGCTGCCCTCTGTGTTCTACGCTTCCCTCCAGTCTTGGCGCACGCGTAGGCATCTCCAC
GCTGGAGGGGGGCTGCCAGGACTCCTGTCTCTGGGTGAGGCCGCATCCTTCAAGGCCATGTGGGCTGTGCGTT
TCTCAGACCCTCCTTCTGTCCCTACACCTGCTCCTTGGACCCCCAGTCTGTGGCCACCTGAAGAATGTGCAGA
AACACTTGTGTGGCCTGTCCCTGTCTCTGACAGCCTTCTATTTGTGAAGTGCCCTGTGGCCCCCTCCCCAGCA
CCTCTGTCTGCCATGCGCTTCTTCTCCCAGGCTACCTTGAGCCTTCTCTGGCCAGTCTCACCACAGTCCACA
GAAGCCGCAAAACAGGCTCATAGCCAAGCTGTGACCTGGTCTGACCATCTGGGGCAGAGGGCCTGGGCTGGCCC
TGCTAGGCTGGAGAAGCCCTGTACCTGTGCACATCTTGCTGGTGAGGAGCATGGCCCACTGTGCAGGACCCACC
CTCGGGGGCTTTGCGCTCCCACACTGATGATTCTCCCAGCATCCACACCGGGCTGGCGCTACGTACTCAGGCC
CCAGCTCTCTGTGTCTGGAGGAAGAGTACTCTCCAGACATGGGTTGATCACCTAGAGGAGCTCTGGCTAAGGCA
CAGTTTTCTAGAAAATAAAACATTTATTTCGGTTTGGAAGGCCCTTGGATTCTTGCTGGGTGGGGACAATGATGACCT
GGACCCTGGCCAGAAGAGCCCTGGCCCTCCAGCAAGGCAGCACCTGCTCTGATGCACCTGTGCACCCCTGGCCCT
CCCAGCCACCTGGGAGTCCGAAGCTTAGCCTGGAGGTGGCCAAGCCAGTCCCTACTCTTGGGCTGCGGCCACGTG
AGGCTCCGCATCAGCAGCCAGGGGCGAGCACTAGTGGAACAAAGCCAGCAAATGCGGCGTTCTGTGAGCAGATAC
CCTCAACCAGCCAGCTGTCAAAAGTATTTCAAGATAAAATCCAGGCCAAGC

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FIGURE 4354

ACTCTTCTGGTCCCCACAGACTCAGAGAGAACCCACCAATGGTGTGTCTCCTGCCGACAAGACCAACGTCAAGGC
 CGCCTGGGGTAAGGTCGGCGCGCACGCTGGCGAGTATGGTGCGGAGGCCCTGGAGAGGATGTTCTGTCTTCCC
 CACCACCAAGACCTACTTCCCGCACTTCGACCTGAGCCACGGCTCTGCCAGGTTAAGGGCCACGGCAAGAAGGT
 GGCCGACGCGCTGACCAACGCCGTGGCGCACGTGGACGACATGCCCAACGCGCTGTCCGCCCTGAGCGACCTGCA
 CGCGCACAAAGCTTCGGGTGGACCCGGTCAACTTCAAGCTCCTAAGCCACTGCCTGCTGGTGACCCTGGCCGCCCA
 CCTCCCCGCCGAGTTACCCCTGCGGTGCACGCCTCCCTGGACAAGTTCCTGGCTTCTGTGAGCACCGTGCTGAC
 CTCCAAATACCGTTAAAGCTGGAGCCTCGGTAGCCGTTCTCTGCCCGCTGGGCCCTCCCAACGGGCCCTCCTCCC
 CTCCTTGACCGGCCCTTCTGGTCTTTGAATAAAGTCTGAGTGGGCGGC

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FIGURE 4355

MVLSPADKTNVKAAWGKVGAGHAGEYGAEALERMFLSFPTTKTYFPHFDLSHGSAQVKGHGKKVADALTNAVAHV
DMPNALSALSDLHAHKLRVDPVNFKLLSHCLLVTLAAHLPAEFTPAVHASLDKFLASVSTVLTSKYR

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FIGURE 4356

ACTCTTCTGGTCCCCACAGACTCAGAGAGAACCCACCATGGTGCTGTCTCCTGCCGACAAGACCAACGTCAAGGC
CGCCTGGGGTAAGGTCGGCGCGCACGCTGGCGAGTATGGTGCGGAGGCCCTGGAGAGGATGTTCTGTCTTCCC
CACCACCAAGACCTACTTCCCGCACTTCGACCTGAGCCACGGCTCTGCCCAGGTTAAGGGCCACGGCAAGAAGGT
GGCCGACGCGCTGACCAACGCCGTGGCGCACGTGGACGACATGCCCAACGCGCTGTCCGCCCTGAGCGACCTGCA
CGCGCACAAGCTTCGGGTGGACCCGGTCAACTTCAAGCTCCTAAGCCACTGCCTGCTGGTGACCCTGGCCGCCCA
CCTCCCCGCCGAGTTCACCCCTGCGGTGCACGCCTCCCTGGACAAGTTCTTGGCTTCTGTGAGCACCGTGCTGAC
CTCCAAATACCGTTAAGCTGGAGCCTCGGTGGCCATGCTTCTTGCCCCCTTGGGCCTCCCCCAGCCCCCTCCTCCC
CTTCTGCACCCGTACCCCGTGGTCTTTGAATAAAGTCTGAGTGGGCGGC

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FIGURE 4357

MVLSPADKTNVKAAWGKVGAGHAGEYGAEALERMFLSFPTTKTYFPHFDLSHGSAQVKGHGKKVADALTNVAHV
DMPNALSALSDLHAHKLRVDPVNFKLLSHCLLVTLAAHLPAEFTPAVHASLDKFLASVSTVLTSKYR

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FIGURE 4358

CCGACGCGACCATCGTTTTGTCGACGCCGCTGCCACCGCCTGCCTGAGAGAAGTCGTGCGGGCCGACCCCGTCGCC
TCCGCCGGCTACCATGTCGCCCCAGGCGCAGATGCGGGCCCTGCTGGACCAGCTCATGGGCACGGCTCGGGACGG
AGACGAAACCAGACAGAGGGTCAAGTTTACAGATGACCGTGTCTGCAAGAGTCACCTTCTGGACTGCTGCCCCA
TGACATCCTGGCTGGGACGCGCATGGATTAGGAGAATGTACCAAAATCCACGACTTGGCCCTCCGAGCAGATTA
TGAGATTGCAAGTAAAGAAAGAGACCTGTTTTTTGAATTAGATGCAATGGATCACTTGGAGTCCTTTATTGCTGA
ATGTGATCGGAGAAGTCTGAGCTCGCCAAGAAGCGGCTGGCAGAAACACAGGAGGAAATCAGTGCAGGAGTTTCTGC
AAAGGCAGAAAAAGTACATGAGTTAAATGAAGAAATAGGAAAACCTCCTTGCTAAAGCCGAACAGCTAGGGGCTGA
AGGTAATGTGGATGAATCCCAGAAGATTCTTATGGAAGTGGAAAAAGTTTCGTGCGAAGAAAAAAGAAGCTGAGGA
AGAATACAGAAATTCATGCCTGCATCCAGTTTTTCAGCAGCAAAAGCTGCGTGTCTGCGAGGTCTGTTTCAGCCTA
CCTTGGTCTCCATGACAATGACCGTCGCCTGGCAGACCACTTCGGTGGCAAGTTACACTTGGGGTTTCAATTCAGAT
CCGAGAGAAGCTTGATCAGTTGAGGAAAACGTGCTGCTGAAAAGCAGGAGAAGAGAAATCAGGATCGCTTGAGGAG
GAGAGAGGAGAGGGGAACGGGAGGAGCGTCTGAGCAGGAGGTGCGGATCAAGAACCAGAGATCGCAGGAGGTACG
CTCCCGGGATCGGCGTCGGAGGCGGTCAAGATCTACCTCCCGAGAGCGACGGAATTGTCCCGGTCCCGGTCCCG
AGATAGACATCGGCGCCACCGCAGCCGTTCCCGGAGCCACAGCCGGGGACATCGTCGGGCTTCCCGGGACCGAAG
TGCGAAATACAAGTAACTACTCTGACTCCTTCGGTAGCTGCAACCAGGAGTGAGCCCTTCTCTGTGTTCCAGGG
TCTGCTGAGGGCCGTGTCTGGTGGGGATGGGGCTGGGCTCACCTCAGGAGTAGGGCTGGGGAGTCGTGAACGGG
ACTCAGGTGTGGGAAGAGGCGAGAGGGCTGTGGAGGAGCTCGCACGGCGCCAGGTGATGGGTGCACAGGCACTG
TCCCCTGCCTGCGTCCTGGGGCTGTGCACTGTTGCGTCCATGCTCAGAGTGGCTGAGACTTGTGTCCTGACCAG
GCCCTGCTTACCTCTGTTTTGTTTTTTGTTTTTATATTTTTTTTCCATTGTGTTTTTACGTAGTGTATGTTT
TGTGCATATAGTGTGTATTCTCCTTTGCACTGTTTATGTTACAGTGAAGGCTCTCCTTATTAAAAATCTTCGA
AAGGTCAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 4359

MSAQAQMRALLDQLMGTARDGDETRQVRKFTDDRVCKSHLLDCCPHDILAGTRMDLGECTKIHD LALRADYEIAS
KERDLFFELDAMDHLESFIAECDRRTELAKKRLAETQEEISAEVSAKA EKVHELNEEIGKLLAKAEQLGAEGNVD
ESQKILMEVEKVRAKKKEAEEYRNSMPASSFQQQKLRVCEVCSAYLGLHDNDRRLADHFGGKLHLGFIQIREKL
DQLRKTVAEKQEKRNQDRLRRREEREREERLSRRSGSRTDRRRRSRSDRRRRRSRSTSRERRKLSRSRSRDRHR
RHRSRSRSHSRGHRRASDRDSAKYK

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FIGURE 4360

AGCGGCGAGGGCTGGATCCTGGGCCAAATATATGCCAACAACGACAAGCTCTCCAAGAGGCTGAAGAAAGTGTGG
AAGCCACAGCTGTTTGAGCGAGAGTTCTACAGTGAGATCCTGGACAAGAAGTTCACAGTGACTGTGA~~CCATG~~CGG
ACCCTGGACCTCATCGATGAGGCTTACGGGCTCGACTTTTACATCCTCAAGACCCCGAAGGAGGACCTGTGCTCC
AAGTTTGGGATGGAGCTGAAGCGAGGGATGCTGCTGCGGCTTGCCCGGCAGGACCCCGAGCTGCACCCCGAGGAC
CCCGAGCGGGCGGGCAGCCATCTACGACAAGTACAAGGAATTTGCCATCCCAGAGGAGGAGGCAGAGTGGGTGGGC
CTCAGCTGGAGGAGGCCATTGAGAAGCAGAGACTTTTGAGGAGAAGGACCCGTGTACCCCTGTTCAAGATCTAT
GTGGCGGAGCTGATCCAGCAGCTGCAGCAGCAGGCACTGTCAGAGCCGGCGGTGGTGCAGAAGACAGCCAGTGGC
CAGT~~G~~ACCACACAGCTCCTCCATGCCTGACCAACAGGCCAGCTTTCCCTGCCAGGCCCTTTGCACTGAGGACAC
AGATCCCGGGGAGCTGTGAGGGCCACCGGTGGGCAGTGGGTGGATCCTGGTTTCGTGTGCTGCCCATGCACCTTC
CAGCCCGGGGCCAGCTTGGCAGGGATCCCCAGGAGGCCTGGGCCGCCAGAGGCTCCTCTCAGGCTGGGCCCCGA
CGTTTGCGGCAGTGTTCTTGTCCTGTCCTGGGGCCGGGAGCGAGTAAAGTCTGGGCCAGGC

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FIGURE 4361

MRTLDEAYGLDFYILKTPKEDLCSKFGMELKRGMLRLRLARQDPQLHPEDPERRAAIYDKYKEFAIPEEEAEW
VGLTLEEAIKQRLLEEKDPVPLFKIYVAELIQQLQQQALSEPAVVQKTASGQ

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FIGURE 4362A

GCACCGCGGCTGAGGAGCGGGAGGCCGTCCGGGCAGCGCGGCCGGCGAGAGGGGCCCCGCGCTCTCCGGAG
GCAGAAGTTGTGGATCGGCCGGCGGGGGCGAGCGGGCCCGGGGCGCGCTGCCCGGGCCGCGAGGACG
AGGCGGCGCGCCCGGGCTGTGGAGGCAGCAGCCAGACGCGGCACAGAGAGGGCCTGGGAGCTTGCTGCAGCTTC
AGACAGGGAGCCAGGATGGGAACCACGGACTGACCTGACCTGCGTCTCGGGGCCACTGCACTGGGTGATTACG
TGTGCCAGGCCCTGAGGTGGGCCGGACCTGGGAGTGGCAGCCACACCCACTCGCCCGGGTCTATGGCCACGGTC
GGAGAGTGGTCTGTGTGCGCTGCACCTTCCTGAACCCGGCCGGCCAGCGCCAGTGCTCCATCTGCGAGGCTCCC
CGGCACAAGCCGACCTCAACCACATCCTGCGGCTCAGCGTGGAGGAGCAGAAATGGCCCTGCGCCCGCTGCACC
TTCCGCAACTTCCTGGGCAAGGAGGCTGCGAGGTGTGCGGCTTCACCCCGAGCCTGCGCCTGGGGCTGCCTTC
CTGCCAGTCTCAACGGGGTCTTCCCCAAGCCACCCGCCATCCTGGGGGAGCCCCAAGGGCAGCTGCCAGGAGGAA
GCAGTCCAGTGAGGACTGCGGGGCTGGTGCCACGGACCCCTGAGGGGGCAGTGCGAGGACAAGGACGAGGAG
GAGAAGGAGGAGCAGGAGGAGGAGGAGGGAGCGCGGAGCCAGAGGGGGCTGGCGGTGTCGCGTTGCACGCTG
CACAACACGCCCCGTGGCCAGCTCCTGCTCCGTCTGCGGGGGGCCACGCAAGCTCTCGCTGCCACGGATCCCTCCT
GAGGCCCTGGTGGTCCCAGAGTGGTGGCCCCGGCCGGCTTCACGTCGTGCTGCGCGCCTCCACCTGGCCTC
CCCGGGGAAGGTGCCGAGGCCAACCCCCAGCCACCAGCCAGGGCCAGCTGCCGAACCAGAGCCGCCCCAGGGTC
CCGCCCTTCAGCCCCCTTCTCGTCCACCCTGCAGAACAAACCCGTGCCGCGCAGCCGACGCGAGGTTCCCCCCAG
CTGCAGCCACCGGTGCTGAGGCTGCCAGCCGTACCCCTTGCCGGCTGCAGGGGAGCCCCCAGGGCTCGGGC
TGGGCTGGGGCTCCCGCTAGCAGAGTTGCTGTCTGGCAAGCGGCTGAGTGTGCTGGAGGAAGAGGGCCACGGAG
GGTGGCACCAGCCGCTAGAGGCCGGCAGCTCCACCTCGGGCAGTGACATCATTGACCTGGCCGGAGACACCGTG
CGTTACACGCCCCGAGCCCCCTCCAGCCCCGACTTCACACCTGGTCAATGTGCAAGTGACGCTCAGAAACCCC
ACAGTGGCCCCCAGGTGCTCGGCCTGCGGCTGCTCCAACTGCACGGCTTCAGGAGCATGGCGAGCCCCCACC
CACTGCCCCGACTGTGGGGCCGACAAGCCAGCCCCCTGCGGCAGAAGCTGCGGACGGGTGTCTCGGCCAGAAG
GCCGCCCGCGTCTGCCGAGCGCCGGGCCAGTGGGCTGCCCTGCTGTACCCTGCTCAACGCACCTGCGGGCC
AAGCACTGCGCCGCTGCCACACGCTCAGCTCCTGGTGGCCAGCGCGGGGGGCCGCGCCCCCTGAGGCGCAGG
GAGAGCATGCAGTGAGCAGCGCGGCAGACAGAGGGCGAGGCCAAGGCACTCTGGGAGAACATCGTGGCC
TTCTGCCGGGAGAACAATGTGAGCTTCGTGGATGACAGCTTCCCTCCCGGGCCGAGTCTGTGCGCTTCCCCGCG
GGTGACAGCGTGACAGCAGCTGTGAGGCAGTGGCTGCGACCCAGGAGATCAACTGCTCCGTCTTCAGGGACCAC
AGGGCCACGTGGTCTGTGTTCCACACACTGCGGCCCTCAGACATCCTGCAGGGGCTGCTGGGGAACCTGCTGGTTC
CTGAGCGCCCTGGCGGTGCTGGCGGAGCGGCCGACCTGGTGGAGCGGGTGATGGTCACGCGCAGCCTGTGTGCA
GAGGGCGCCTACCAGGTGCGGCTGTGCAAGGACGGCAGTGACCACGGTGCTGGTGGACGACATGCTGCCCTGT
GATGAGGCCGGCTGCCTCCTCTTCTCACAGGCGCAGCGGAAGCAGCTGTGGGTGGCCCTCATCGAGAAGGCGCTG
GCCAAGCTGCACGGCTCCTACTTTGCGCTCCAGGCGGGCCGCGCCATCGAAGGCCTGGCCACGCTCACCGGCGCC
CCCTGTGAGAGCCTGGCGCTGCAGCTCAGCTCCACTAACCCCGCGAGGAGCCCGTTGACACTGACCTCATCTGG
GCCAAATGCTGAGTTCTAAGGAGGCTGGGTTCTCATGGGTGCCTCCTGTGGCGGGGGCAACATGAAGGTGGAC
GATTGGCCCTACGAGAGCCTGGGCTGCGCCCCCGGCATGCCTACTCCATCCTGGATGTCCGAGATGTCCAGGGC
ACCAGGCTTCTGCGGCTCCGAAACCCGTGGGGCCGTTTCTCCTGGAACGGCAGCTGGTCCGACGAGTGCCACAC
TGGCCGGGGCACCTGCGTGGCGAGCTCATGCCGACGGCAGCAGTGAGGGTGTCTTCTGGATGGAGTACGGCGAC
TTTGTGAGGTACTTCGACTCCGTGGACATCTGTAAGGTGCACTCGGACTGGCAGGAGGCGGGGTGCAGGGCTGC
TTTCCAGCTCGGCCAGCGCGCCCGTGGGGGTAAACAGCGCTCACGGTGCTGGAGCGGGCTCGCTGGAGTTCCGG
CTCTTCCAGGAGGGCAGCAGGCGCTCGGACGCCGTGGACAGCCACCTGCTGGACCTGTGCATCCTGGTGTTCGG
GCCAGGTTCCGGCAGCGGCGGCCACCTCAGCCTGGGCCGCTCCTGGCCACAGTAAGCGCGCGGTCAAGAAGTTC
GTCAGCTGCGACGTATGCTGGAGCCTGGCGAGTACGCTGTGGTGTGCTGCGCTTCAACCACTGGGGGCCGCC
CTGCCGGGACCCCTGCCCCCAAGGCTCCAGCCCCCTCGGCAAGGGTCCCGAGAGCCTCCCCAGAGCCGCGGGC
CAGTGCTGGCTGTGTACAGCTCGAGGCTGGTCAATGGTGGAGCCCGTGAAGCCAGCCGACCACGCTGGCCGAC
GCCATCATCTGCTCACCAGAGAGCCGCGGAGAGCGGCACGAGGGCCGTGAGGGCATGACCTGCTACTACCTGACA
CACGGTTGGGCGGGGCTCATCGTGGTGGTGGAGAACCAGACACCCCAAGGCCTACCTGCACGTGCAGTGTGACTGC
ACCGACAGCTTCAACGTGGTGTCCACACGCGGCAGCCTGCGTACCCAGGATAGCGTGCCACCCCTGCACAGGCAG
GTCCTGGTGTATCTGTCCAGCTAGAGGGCAACGCCGGCTTCTCTATACCCACCGCCTGGCACATCGCAAGGCA
GCCCAGGCCCTTCTCAGTGACTGGACAGCCTCCAAGGGGACCCACAGCCCCCACTACGCCAGAGGTGCGCGGT

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FIGURE 4362B

CTGCATGGGCCCCGACCGCTGTGAACCATGCCTGGGGCAGGGGCTGTGCACAGACGGACCCCCACCCCCACA
CGCACTTTATGAGGGAGACCCCGACAGAGGACGCTTGAGCCAGAATCTCAGGACCCCGCCAGGGAGCTGCCAGC
CCAGGGCTCAGCTTCCCATGGGCCCCCGCCCCCTCCTTCCCTCCCTGAACCCACAGTCCGCCTGGCCAGAC
CTCCTGGCCGCCACGCAGAATACCTCGAACCAGGCGGGCTGTGAACAGCCCGCTCACCTGCCAGCCCCAACAC
CCGACGGGGGCCGAGGCCAGGCTGCCCTCCTGTGGGCTCAGGGTCTCCTGCGGGCTAGGCAGCCAGGAGCTCT
GTCCGCAAAACCAAACTCTGGGTGTCAGAGGCCAAGACCCTGGGGTGGGATCAGGGACACCCCTCACGGGGCATA
AGGTCAAGTTTCCCCCAGAGCCCGGGTCCCTGTCCCCCACAGGGCAGGCGGGTCCCTGGAGCCCTGGTGTGGAG
CGGCGAGTCCCGGGGCGGTGCCTGTCTCAGAAGAAGGG

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FIGURE 4363

MATVGEWSCVRCTFLNPAGQRQCSICEAPRHKPDNLNHLRLSVEEQKWPCARCTFRNFLGKEACEVCGFTPEPAP
GAAFLPVLNGVLPKPPAILGEPKGSCQEEAGPVRTAGLVATEPARGQCEDKDEEEKEEQEEEEGAAEPRGGWACP
RCTLHNTPVASSCSVCGGPRRLSLPRIPPEALVVPEVVAPAGFHVVPAAPPPGLPGEAEANPPATSQGPAAEPE
PPRVPPFSFSSTLQNNPVPRSRREVPPQLQPPVPEAAQPSPSAGCRGAPQGSWAGASRLAELLSGKRLSVLEE
EATEGGTSRVEAGSSTSGSDIIDLAGDTVRYTPASPSSPDFTTWSCAKCTLRNPTVAPRCSACGCSKLHGFQEHG
EPPTHCPDCGADKPSPCGRSCGRVSSAQKAARVLPERPQWACPACTLLNALRAKHCAACHTPQLLVAQRRGAAP
LRRRESMHVEQRRQTDEGEAKALWENIVAFCRENNVSFVDDSFPPGPESVGFPAGDSVQQRVQRWLRPQEINCSV
FRDHRATWSVFHTLRPSDILQGLLGNCWFLSALAVLAERPDLVERVMVTRSLCAEGAYQVRLCKDGTWTTVLVDD
MLPCDEAGCLLFSQAQRKQLWVALIEKALAKLHGSYFALQAGRAIEGLATLTGAPCESLALQLSSTNPREEPVD
DLIWAKMLSSKEAGFLMGASCGGGMKVDDSDAYESLGLRPRHAYSILDVRDVQGTLLRLRNPNWGRFSWNGSWSD
EWPWHPGHLRGELMPHGSSEGVFWMEYGDFVRYFDSVDICKVHSDWQEARVQGCFFSSASAPVGVLTALTVERAS
LEFALFQEGSRRSDAVDSHLLDLCILVFRATFGSGGHLSLGRLLAHSKRAVKKFVSCDVMLEPGEYAVVCCAFNH
WGPFLPGTPAPQASSPSAGVPRASPEPPGHVLAVYSSRLVMVEPVEAQP TTLADAI ILLTESRGERHEGREGMTC
YYLTHGWAGLIVVVENRHPKAYLHVQCDCTDSFNVVSTRGSLRTQDSVPPLHRQVLVILSQLEGNAGFSITHRLA
HRKAAQAF LSDWTASKGTHSPPLTPEVAGLHGPRPL

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FIGURE 4364

CTGGGCCGCGAGGCGCGGAGCTTGGGAGCGGAGCCCAGGCCGTGCCGCGCGGCCCGCCATGAAGGGCAAGGAGGAGA
AGGAGGGCGGGCGCACGGCTGGGCGCTGGCGGCGGAAGCCCCGAGAAGAGCCCGAGCGCGCAGGAGCTCAAGGAGC
AGGGCAATCGTCTGTTTCGTGGGCCGAAAGTACCCGGAGGCGGCGGCCTGCTACGGCCGCGCGATCACCCGGAACC
CGCTGGTGGCCGTGTATTACACCAACCGGGCCTTGTGCTACCTGAAGATGCAGCAGCACGAGCAGGCCCTGGCCG
ACTGCCGGCGCGCCCTGGAGCTGGACGGGCAGTCTGTGAAGGCGCACTTCTTCCTGGGGCAGTGCCAGCTGGAGA
TGGAGAGCTATGATGAGGCCATCGCCAATCTGCAGCGAGCTTACAGCCTGGCCAAGGAGCAGCGGCTGAACTTCG
GGGACGACATCCCCAGCGCTCTTCGAATCGCGAAGAAGAAGCGCTGGAACAGCATTGAGGAGCGGCGCATCCACC
AGGAGAGCGAGCTGCACTCCTACCTCTCCAGGCTCATTGCCGCGGAGCGTGAGAGGGAGCTGGAAGAGTGCCAGC
GAAACCACGAGGGTGATGAGGACGACAGCCACGTCCGGGCCCCAGCAGGCCTGCATTGAGGCCAAGCACGACAAGT
ACATGGCGGACATGGACGAGCTTTTTTCTCAGGTGGATGAGAAGAGGAAGAAGCGAGACATCCCCGACTACCTGT
GTGGCAAGATCAGCTTTGAGCTGATGCGGGAGCCGTGCATCACGCCAGTGGCATCACCTACGACCGCAAGGACA
TCGAGGAGCACCTGCAGCGTGTGGGTCATTTTGACCCCGTGACCCGGAGCCCCCTGACCCAGGAACAGCTCATCC
CCAACTTGGCTATGAAGGAGGTTATTGACGCATTATCTCTGAGAATGGCTGGGTGGAGGACTACTGAGGTTCCC
TGCCCTACCTGGCGTCCCTGGTCCAGGGGAGCCCTGGGCAGAAGCCCCCGGCCCTATACATAGTTTATGTTCCIG
GCCACCCCGACCGCTTCCCCAAGTTCTGCTGTTGGACTCTGGACTGTTTCCCCTCTCAGCATCGCTTTTGCTGG
GCCGTGATCGTCCCCCTTTGTGGGCTGGAAAAGCAGGTGAGGGTGGGCTGGGCTGAGGCCATTGCCGCCACTATC
TGTGTAATAAAATCCGTGAGCACGA

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FIGURE 4365

MKGKEEKEGGARLGAGGGSPEKSPSAQELKEQGNRLFVGRKYPEAAACYGRAITRNPLVAVYYTNRALCYLKMQQ
HEQALADCRRALELDGQSVKAHFFLGQCQLEMESYDEAIANLQRAYSLAKEQRLNFGDDIPSALRIAKKKRWNSI
EERRIHQESSELHSYLSRLIAAERERELEECQRNHEGDEDDSHVRAQQACIEAKHDKYMADMDELFSQVDEKRKKR
DIPDYLCGKISFELMREPCITPSGITYDRKDIEEHLQRVGHFDPVTRSPLTQEQLIPNLAMKEVIDAFISENGWV
EDY

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FIGURE 4366

GCGGAGCTTCCAGGGTCTCTGGGTGCGCAGCGCGGGCGCGGGCTGGAGCCGGCGCCGGGCACGGCATCGGGG
GCCTGGACTGCACGGCCCCGGCAGCAGGTTGGTCTTGGCGTGGGCGTGGGCGCGGGAGGGGCTCGGAGCCAGGGTC
GGCCTGCCACCGGGCCTGTGCGGGGCGCGGGTCTGCGCGGACTGCGGGGAGCGAGGAGGCCCCAGCCCTAACCC
GCGCTGCGGGCAGACCTGGGTGCCGGGCCTGGTAGTGCTGCAGCCCCCTCCCGCCCCACCGCTCGGGCAGAGGCA
TTCACGTGCATCCCCTGGAGGGGAGGGTCTGTGGGGAGGATCTGTGGGGCAGGTTTGGAACGGGCTCTTTCTCCA
GGCTTAGGTACGGCAGGGGCCCTTACGGTCAGCCCGGAGCAGGCTGACTCCTTGACTCCCCAGCTGACGCCCTGGG
GACTGATCTCGGGGACTGAGGATGCAGGTGCACAGTAGGGCTGCGGACCCGGCTCGGTGGCTTCGCACCGGAGCC
CGGGTGGGGCGGTGCGGGTACCTCTGTATGCTGGGCTGGGGGCGCACCACGTGCTCACAGCACACGCACCCACGC
GTGGCTCGGCAGGCCGGCCATGGAGCCAGGCAGCGTGGAGAACCCTGTCCATCGTGTACCGGAGCCGCGACTTCCT
GGTGGTCAACAAGCACTGGGACGTTGCGATTGACAGCAAGCGTGGCGGGAGACTCTGACCCTGCAGAAGCAGCT
GCGGTACCGCTTTCCCGAGCTGGCCGACCCCTGACACCTGCTACGGGTTTACGGTTCTGCCACCAGCTGGATTTCTC
CACCAGCGGGGCGCTGTGCGTGGCCCTAAACAAGGCAGCCGCCGGCAGCGCGTACAGGTGCTTCAAGGAGCGGCG
CGTGACCAAGGCTTACCTGGCATTGCTGCGGGGCGACATCCAGGAGAGCCGGGTAACCATCAGCCATGCCATTGG
CAGGAACAGCACGGAGGGCGGGGCCACACCATGTGCATCGAGGGCTCGCAGGGTTGTGAGAACCCAAAGCCAAG
CCTCACAGATCTCGTGGTTCTGGAACACGGGCTGTACGCAGGCGATCCTGTCTCCAAAGTGCTGCTGAAGCCGCT
CACGGGCCGGACACACCAGCTGCGCGTGCAGTGCCTGGGCCACCCCGTGGTGGGCGACCTGACCTACGG
AGAAGTCTCGGGCCGGGAGGACCGGCCGTTTCAAGATGATGCTGCACGCTTTCTACCTGCGCATCCCCACGGACAC
CGAGTGTGTGGAGGTCTGCACGCCTGACCCCTTCTGCCCTCCCTGGATGCCTGCTGGAGCCCCACACACTGCT
GCAGTCGCTGGACCAGCTCGTGCAGGCCTTACGGGCCACCCCGACCCCTGACCCCGAGGATAGGGGCCCCAGGCC
AGGCAGCCCCCTCCGCACTCCTGCCTGGGCCCGGCCGGCTCCTCCACCCCAACCAAGCCCCCTGAGACTGAGGC
ACAGCGGGGCCCTGCCTGCAGTGGCTGTGCGAGTGGACGCTGGAACCGGACAGCTGAGAGCCGTGGGGCTGGGG
CAGGGGGTGTGAGCTGCACAGCGGGACTCTAGGGAGATGGGCGAGCGAGCGTCTGCTCACTGGCTCTGGGGCCTC
GAGGTGCCAGGCAGCATCAGGCCACTGGGTTGCCCGGCCAGGCCTGCGAGGAAGGGCTGAGGTGGGGCCGGCA
GGGGGCGCCAGGCAGCCGTGATCACAGGTGACGACCGCACCGCGGCCGTGGGACTGATGCGGGATCCCGAGGGCC
TTCTGCCCACATGCCCCGGGAGAAACCGAGGCCCTCCCTCCTCCTGGAACAGCTTCCGGCTCTCAAGCGTCAC
CCCAGGGGCGTCAGTTTACGGACTCAAGGTACCTCAGGAAGAGGCAGGGCCAGGTTTTGGGATAGGCTTTGCC
TCCAGGATGGGCTGCTCCTGGGCTGGTGAGCTACTGCCCCAACCTACCCTCTAGAGGGGCTGGGAAGGGCCGT
TCTGGGCTCACCTGGCCTGGGAGACCCATCTGGTCCCTGCGTCTCTGCCCCTCACTGCTCTGTGCAGATCCTGT
CGCCCTCAGCTGCCTCCTCCCGAGACCTAATGGTCCCTGCTGGGCTCGAGTCTGCAGGCCCGGCTGCGTGTGCCT
TGGCCTCACTGTACAGTGGTTCCCTCTCTGCCCCGATTCTGAGCTCAGTGTGGTGTGTTGGTGCACAGGGGTTGG
TCAGGGGGCCATGGCCAAGGCCCTGCCACGCACGCCCATCCCTCAGATCCACTGTGAGCACCAACCTGCTGCAGTC
TCTTGGGGCCCTGCTGGCAGCTCTGCCACGTACCGCCTGCCTGGCTCCACACAGCCATGCATTGTCACTCTGC
CTCCGGGACCCAGCTTGGGAGCTGTGGGTCTGCCAGGTCCACCTCCTCTGTCCCCATGCCACAACCTGGGCT
CCTGGCTACAGCAGGGCTCCAGGGACTCCAAATAAATGTTTCACTGACTGGCTCCAAGGATGAC

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FIGURE 4367

MEPGSVENLSIVYRSRDFLVVNKHWDVRIDSKAWRETLTLQKQLRYRFPELADPDTCYGFRFCHQLDFSTSGALC
VALNKAAAAGSAYRCFKERRVTKAYLALLRGHIQESRVTISHAIGRNSTEGRAHTMCIEGSQGCENPKPSLTDLVV
LEHGLYAGDPVSKVLLKPLTGRTHQLRVHCSALGHPVVGDLTYGEVSGREDRPFRRMLHAFYLRIPTDTECVEVC
TPDPFLPSLDACWSPHTLLQSLDQLVQALRATPDPPEDRGPRPGSPSALLPGPGRPPPPPTKPPETEAQRGPCL
QWLSEWTLEPDS

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FIGURE 4368

GCGGGAGGTTTCGAGCGGGAGCTCGGGCTCGCGGACGGTATCGAGGACTACGAGCAGGAGCTGTGCGGCGTCGAG
GATGATTTCACAACAGTTTCGCGGCCGAGCTGGAGGTGCTGGCAGAGCTGGAAGGGGCGTCGACTCCGTCGCCC
TCCGGGGTCCCCCTGTTACCGCGGGGCCGACCCCCGCGGACGTTTCGAGGAGGCCCTTGCCAGAGGGGACGCGGCC
TCCAGTCCCGCCCCAGCCGCATCTGTGGGCAGCAGCCAGGGCGGCCAGGAAGAGGCAGGTGGACGCCGACCTG
CAGCCGGCCGGGTCCCTGCCCCACGGTAGGTTGGCGGCATTGCCCCAGGGCCTCCGGAGTGGGCGCGAGGCTGAG
GAGGCCTCTGGTTCCCTGCATGTGTCTCCCCAGCCCCCAGGATCAAACGGCCTAGGCTGCAGGTGGTCAAGAGG
CTGAACCTTCAGATCGGAGGAGATGGAGGAGCCGCCCCCTCCCGACTCCTCGCCGACGGACATACCCCCGCCGCCG
AGCCCTGAGGACCTCGCAGAGCTTTGGGGCCACGGAGTCTCAGAAGCTGCTGCCGACGTGGGTCTCACACGGGCC
TCACCAGCTGCCCCGAATCCCGTCTGAGGCGGGCCCCCATCTTGAGGAGTACGTCCACGTGACATCCACGGAG
GGCGTCCGGGCTTATCTGGTGCTGCGTGCTGACCCCATGGCCCCGGGGGTGCAGGGCTCTCTCCTCCACGTCCCA
TGGCGAGGCGGTGGCCAGCTGGACCTGCTGGGTGTGTCTTAGCCTCCCTGAAGAAGCAGGTGCACGGCGAGCGG
CGGGAGCGGCTGCTTCAGGAGGCCCAGAAGCTTTCAGACACCCTGCACAGTCTCAGGTGGGGGAGGAGGAGGCA
GCCCCAGCCCTTGGGGGCCCTGAGGAGGAGCCGACTGACGGTCAAGACGCCTCCAGTCACTGCCTCTGGGTGGAT
GAGTTTGACCCCCGCCACTACACGGAGCTGCTCAGTGATGACTTCACCAACCGCTGCCTGCTCAAGTGGCTGAAG
TTGTGGGACCTGGTGGTGTGTTGGCCACGAGAGGCCTTCCCGGAAGCCAGGCCCAGTGTGAGCCGGCCCGGGTC
AGCAAGGAGGCCACAGCCCCAGGCAAGTGGAAGAGCCACGAACAGGTGCTGGAGGAGATGCTGGAGGCTGGGCTG
GACCCGAGCCAGCGACCGAAGCAGAAGGTGGCACTGCTCTGTGGGCCCCGGGGCTGGGGAAGACCACCCTGGCA
CACGTGATTGCGCGTACGCGGGGTACTCTGTGGTGGAGATGAACGCCAGTGACGACCGTAGCCCGGAGGTCTTC
CGCACACGCATCGAGGCGGCCACCCAGATGGAGTGGTGCTGGGTGCTGGCGGGAAGCCCAACTGCCTGGTTCATC
GATGAGATCGACGGGGCCCCCGTGGCCGCCATCAACGTCTCTGAGCATCCTGAACCGCAAGGGGCCACAGGAG
GTGGGGCCACAGGGCCCCGGCTGTGCCTTCGGGAGGCGGCCGACGGCGCCGGGCAGAGGGGGGCTCCTCATGAGG
CCCATTATCTGCATTTGCAATGACCAGTTCGCACCGTCCCTGCGGCAGCTGAAGCAGCAGGCCCTTCTGCTCCAC
TTCCCGCCGACTCTGCCCTCGAGGCTGGTGCAGCGCTCCAGGAGGTCTCCCTGCGGCAGGGCATGAGGGCCGAC
CCAGGGGTGCTGGCCGCCCTCTGTGAGAAAAGTACAATGACATCCGGGCCTGCATCAACACCCTGCAGTTCCTG
TACAGCCGGGGCCAGCGGGAGCTGAGCGTGGGGACGTGCAGGCCACACGCGTGGGCCTCAAGGACCAGCGCAGA
GGGCTCTTCTCGGTGTGGCAGGAGTCTTCCAGCTGCCTCGAGCCAGAGGCGCCGTGTGGGCCAGGACCCCGCC
CTGCCTGCTGACACACTCCTGCTGGGTGACGGGGACGCGGGCTCCCTCACCTCCGCCTCACAGCGATTCTACCGT
GTCCTGCATGCCGCTGCCTCTGCGGGCAGCACGAGAAGGTGGTCCAGGGCTTGTTTGACAACCTTCTGCGTCTG
CGGCTGCGAGACTCCAGCCTGGGTGCTGTGTGTGTGGCCCTCGACTGGCTGGCCTTCGATGACCTGCTGGCGGGG
GCTGCTCATCACAGCCAGAGCTTCCAGCTGCTGCGCTACCCACCCTTCTGCCCCGTGGCCTTCCATGTGCTGTTT
GCTTCCAGCCACACACCAGGATCACCTTCCCCAGCAGCCAGCAGGAGGCCCAGAACCAGGATGAGCCAGATGAGG
AACCTGATCCAGACGCTGGTGTCCGGCATCGCGCCAGCCACGCGCAGCCGGGCCACGCCCCAGGCCCTGCTCCTC
GATGCCCTCTGCCTGCTCCTGGACATTCTTGACCCCAAGCTCCGCCCCGTGAGCACACAGCTGTACAGCACCCGT
GAAAAGCAACAGCTGGCCAGCCTGGTGGGCACGATGCTCGCTTACAGCCTGACCTACCGCCAGGAGCGCACGCCC
GATGGCCAGTACATCTACAGGCTGGAGCCGAACGTGGAGGAACTCTGCCGCTTCCCTGAGCTGCCTGCCCGAAG
CCCCTACCTACCAGACGAAGCAGCTCATCGCCCGCAGATCGAGGTGGAGAAGATGCGGCGGGCGGAGGCTTCT
GCCCGGGTAGAGAACAGCCCCCAGGTGGATGGGAGCCCCCAGGGCTCGAGGGTCTGCTGGGGGGCATTGGGGAG
AAAGGGGTGCACCGACCTGCCCCACGCAACCATGAGCAGCGGCTGGAGCACATCATGAGGCGAGCGGCCCGGGAG
GAACAGCCTGAGAAGGACTTCTTTGGACGTGTGGTCTCAGGAGCACAGCAGTCCCGAGTGCAGGGGACACGGCC
CCGGAGCAGGACTCAGTGGAGCGGCGCATGGGCACAGCGGTGGGCAGGAGCGAGGTCTGGTTCCGCTTCAACGAG
GGTGTCTCCAACGCCGTGCGGCGCAGCCTGTACATCAGGGACTTGCTCTAGTCTCTGAGCCGCGGACATGCCCT
CGCATTGCTTCCCGCAGAGTGACAGAGACAGGAAGCTGGAGATGTCTTTATAAAGTCACACCTTTACAGACTGT

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FIGURE 4369

MEDYEQELCGVEDDFHNQFAAELEVLAELEGASTPSPSGVPLFTAGRPPRTFEEALARGDAASSPAPAASVGSSQ
GGARKRQVDADLQFAGSLPHGRLAALFQGLRSGREAEAEASGSLHVSPPAPRIKRPRQLQVVKRLNFRSEEMEPPPP
PDSSPTDITPPPSPEDLAELWGHGVSEAAADVGLTRASPAARNPVLRRPPILEDYVHVTSTEGVRAYLVLRADPM
APGVQGSLLHVPWRGGGQDLDLLGVSLASLKKQVDGERRERLLQEAQKLSDTLHSLRSGEEEAQPLGAPEEEPTD
GQDASSHCLWVDEFAPRHYTELLSDDFTNRCLLKWLKLDLVVFGHERPSRKPRPSVEPARVSKEATAPGKWKSH
EQVLEEMLEAGLDPSQRPKQKVALLCGPPGLGKTTLAHVIARHAGYSVEMNASDDRSPEVFRTRIEAATQMESV
LGAGGKPNCLVIDEIDGAPVAAINVLLSILNRKGPQEVGPQGPAPVPSGGGRRRRAEGGLLMRPIICICNDQFAPS
LRQLKQQAFLHFPPTLPSRLVQRLQEVSLRQGMRADPGVLAALCEKTDNDIRACINTLQFLYSRGQRELSVRDV
QATRVGLKDQRRGLFSVWQEVFQLPRAQRRRVGQDPALPADTLLLGDGDAGSLTSASQRFYRVLHAAASAGEHEK
VVQGLFDNFLRLRLRDSSLGAVCVALDWLAFDDLLAGAAHHSQSFQLLRYPPFLPVAFHVLFASSHTPRITFPSS
QQEAQNRMSQMRNLIQTLVSGIAPATRSRATPQALLLDALCLLLDILAPKLRPVSTQLYSTREKQQLASLVGTML
AYSLTYRQERTPDGQYIYRLEPNVEELCRFPPELPARKPLTYQTKQLIAREIEVEKMRRAEASARVENSPQVDGSP
PGLEGLLGIGEGKVHRPAPRNHEQRLEHIMRRAAREEQPEKDFFGRVVVRSTAVPSAGDTAPEQDSVERRMGTA
VGRSEVWFRFNEGVSNAVRRSLYIRDLL

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ATGGGTAGACCGGGCGCGGGCGGGGCGCGGGGCGCGCGCTTAAAGAAACTTGTGCGGGTCCCGCAGCGAGGACCGAGCCTCGGCGGCGGGCGGGCGGGCGGGCAGGGGCGAGGGTTCGGGGCCACCGCGCGGCGACCTCGGGTCCCGGACCGAGCCGAGGGCAGCCCCGGGCGCCGCCCGGTGCGCGTCTCCTGTGCGCGCCCCCTCCGCGCGCGGGCCCCGATGCTGGACATGAGCGAGGCCCGCTCCCAGCCGCCCTGCAGCCCGTCCGGCACCGCCAGCTCCATGTGCGACGTGGAGACTCGGACTCGGACGCGCCGCCGTCTCCCGCCGGCTCCGAGGGCCTGGGGCCGCGCGGGGGTTCGCGGTGGGGGGCGCCCGGGGCGACCCGGCGGAGGCGGGCGGACGAGCGCTTCCCGGCCCTGCATCCGCGAGCGCCGTGTGCGAGGTGCTCAAGGGCTACGACTGGAGTCTGGTGCCCATGCGGTGCGCGGGCGGGCGGGCGGGCGCGCTCAAAGCCAAGCCGCATGTGAAGCGGGCCCATGAACGCATTTCATGGTGTGGGCGCAGGCGGCGCGCCGCAAGCTGGCCGACCAGTACCCGCACCTGCACAACGCCGAGCTCAGCAAGACGCTGGGCAAGCTGTGGCGCTTGCTGAGCGAGAGCGAGAAGCGGGCCCTTCGTGGAGGAGGCAGAGCGCCTTCGCGTGCAGCACAGAAGGACCACCCCGACTACAAGTACCAGCCACGGCGCAGGAAGAGCGCCAAAGCCGGCCACAGCGACTCCGACTCGGGCGCGGAGCTGGGACCCCAACCCTGGCGGCGGTGCCGTGTACAAGGCTGAAGCAGGGCTTGAGATGGGCACCACCATGGCGACCACACAGGGCAGACCCACGGGCCGCCACC CGCCCCACCAACCCCAAGACGAGCTGCAGCAGGCGGGCGCCAAAGCCGGAGCTGAAGCTGGAGGGACGCCGGCCG GTGGACAGCGGGCGCCAGAACATCGACTTCAGCAACGTGGACATCTCGGAGCTCAGCAGCGAGGTTCATGGGCACC ATGGACGCCTTCGACGTCCACGAGTTCGACCACTGCCCCGCGGGCGGGCGGGCGGGCGGGCGGGCGGGCGGGCG GGCTATGGGGGCGCCTTCTCCACGCCGGGGCGTCCCCCGTGTGGGCCCAAGAAGTGCCTCGGCCCTCCGCGTCGCCCCACCGAGACGGGTCCCCACGGCCGCACATCAAGACGGAGCAGCCGAGCCCGGCCACTACGGCGACCAGCCCCGAGGCTCGCCCGACTACGGTTCTGCGAGCGGCCAGTCCAGCGCCACCCCGGCCGCCCGGCCCGGCCCGGCCCTTCGCCGGCTCACAGGGCGACTATGGCGACCTGCAGGCCTCCAGTACTATGGTGCTTACCCTGGCTACGCACCCGGGCTCTACCAGTACCCCTGCTTCCACTCGCGCGCGGGCCCTACGCCTACCCCTGCTCAACGGCCTGGCCCTGCCG CCGGCCACAGCCCCACCAGTCACTGGGACCAGCCGGTGTACACCACCTGACCAGGCCCTGA

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FIGURE 4371

MGSRARGGAAGPPLKETCCGSRSGTRASAAAAAAGARVGATARRPRVPERPQGSPGRRPRCASPVRAPPRAAPM
LDMSEARSQPPCSPSGTASSMSHVEDSDSDAPPSPAGSEGLGRAGVAVGGARGDPAAEAADERFPACIRDAVSQVL
KGYDWSLVPMPVRGGGGALKAKPHVKRPMNAFMVWAQAARRKLADQYPHLHNAELSKTLGKLWRLLESEKRPF
VEEAERLRVQHKKDHPDYKYQPRRRKSAKAGHSDDSGAELGPHPGGGAVYKAEAGLGDGHHHGDHTGQTHGPPT
PPTTPKTELQQAGAKPELKLEGRRPVDSGRQNIDFSNVDISELSSEVMGTMDAFDVHEFDQYLP LGGPAPPEPGQ
AYGGAYFHAGASPVWAHKSAPSASASPTETGPFRPHIKTEQPSPGHYGDQPRGSPDYGSCSGQSSATPAAPAGPF
AGSQGDYGDLQASSYYGAYPGYAPGLYQYPCFHSRRPYASPELLNGLALPPAHSP TSHWDQPVYTTLTRP

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FIGURE 4372A

GGCACGAGGCCGGCGCTTCCCGGCCGGTGTGCTCCGCGCGGGGCCATGGCCAACGTCTCTAAGAAGGTGTCTTG
GTCCGGCCGGGACCGGGACGACGAGGAGGCGCGCCGCTGCTGCGGAGGACGGCGCGGCCCGGGGGGACGCC
GCTGCTGAACGGGGCTGGGCCTGGGGCTGCGCGCCAGTCACCAGTTCTGCGCTTTTCCGAGTCGGACATATGAG
CAGCGTGGAGCTGGATGATGAACTTTTGGACCCGGATATGGACCCTCCACATCCCTTCCCCAAGGAGATCCACA
CAACGAGAAGCTCCTGTCCCTCAAGTATGAGAGCTTGGACTATGACAACAGTGAGAACCAGCTGTTCTTGAGGA
GGAGCGGCGGATCAATCACACGGCCTTCCGGACGGTGGAGATCAAGCGCTGGGTTCATCTGCGCCCTCATTGGGAT
CCTCACGGGCCTCGTGGCCTGCTTCATTGACATCGTGGTGGAAAACCTGGCTGGCCTCAAGTACAGGGTCATCAA
GGGCAATATCGACAAGTTCACAGAGAAGGGCGGACTGTCTTCTCCCTGTTGCTGTGGGCCACGCTGAACGCCCG
CTTCGTGCTCGTGGGCTCTGTGATTGTGGCTTTCATAGAGCCGGTGGCTGCTGGCAGCGGAATCCCCCAGATCAA
GTGCTTCTCAACGGGGTGAAGATCCCCACGTGGTGGCGCTCAAGACGTTGGTGATCAAAGTGTCGGGTGTGAT
CCTGTCCGTGGTTCGGGGGCTGGCCGTGGGAAAGGAAGGGCCGATGATCCACTCAGGTTCAAGTGTGCCGCCG
GATCTCTCAGGGAAGGTCAACGTCACTGAAACGAGATTTCAAGATCTTCGAGTACTTCCGACAGACACAGAGAA
GCGGGACTTCGTCTCCGACGGGGCTGCGGCCGGAGTGTACGCGCGTTTGGAGCCCCGTGGGTGGGGTCTGT
CAGCTTGGAGGAGGGTGCCTCTTCTGGAACAGTTCCTGACCTGGAGGATCTTCTTGTCTCCATGATCTCCAC
GTTACCCCTGAATTTTGTCTGAGCATTACACGGGAACATGTGGGACCTGTCCAGCCCAGGCCTCATCAACTT
CGGAAGGTTTGAAGTTCGGAGAAAATGGCCTACACGATCCACGAGATCCCGGTCTTCATCGCCATGGGCGTGGTGGG
CGGTGTGCTTGGAGCAGTGTCAATGCCCTGAACTACTGGCTGACCATGTTTGAATCAGGTACATCCACCGGCC
CTGCCGTGACGGTGATTGAGGCCGTGCTGGTGGCGCCGTCACGGCCACAGTTGCCCTTCGTGCTGATCTACTCGTC
GCGGGATTGCCAGCCCCGTGACGGGGGCTCCATGTCTACCCGCTGACGCTCTTTTGTGACAGTGGCGAGTACAA
CTCCATGGCTGCGGCCCTTCTTCAACACCCCGGAGAAGAGCGTGGTGAGCCTCTTCCACGACCCGCCAGGCTCCTA
CAACCCCTGACCCCTCGGCCCTGTTACGCTGGTCTACTTCTTCTGCGCTGCTGGACCTACGGGCTCACGGTGT
TGCCGGGGTCTTCATCCCGTCCCTGCTCATCGGGGCTGCCTGGGGCCGGCTCTTTGGGATCTCCCTGTCTACCT
CACGGGGGCGCGATCTGGGCGGACCCCGGCAAATACGCCCTGATGGGAGCTGCTGCCAGCTGGGCGGGATTGT
GCGGATGACACTGAGCCTGACCGTCATCATGATGGAGGCCACCAGCAACGTGACCTACGGCTTCCCCATCATGCT
GGTGCTCATGACCGCAAGATCGTGGGCGACGTCTTCATTGAGGGCTGTACGACATGCACATTACGCTGCAGAG
TGTGCCCTTCTGCACTGGGAGGCCCCGTCACCTCACACTCACTCACTGCCAGGGAGGTGATGAGCACACCAGT
GACCTGCCTGAGGCGGCGTGAGAAGTTCGGCGTCATTGTGGACGTGCTGAGCGACACGGCGTCCAATACAACGG
CTTCCCGTGGTGGAGCATGCCGATGACACCCAGCCTGCCCGGCTCCAGGGCTGATCCTGCGCTCCAGCTCAT
CGTTCCTCTAAAGCACAAGGTGTTTGTGGAGCGGTCAAACCTGGGCTGGTACAGCGGCGCCTGAGGCTGAAGGA
CTTCCGAGACGCTACCCGCGCTTCCACCCATCCAGTCCATCCACGTGTCCAGGACGAGCGGGAGTGACCAT
GGACCTCTCCGAGTTCATGAACCCCTCCCCCTACACGGTGCCCCAGGAGGCGTCCCTCCACGGGTGTTCAAGCT
GTTCCGGGCCCTGGGCCTGCGCACCTGGTGGTGGTGGACAACCGCAATCAGGTTGTGCGGTGGTGACCAGGAA
GGACCTCGCCAGGTACCGCTGGGAAAGAGAGGCTTGGAGGAGCTCTCGCTGGCCAGACGTGAGGGCCAGCCCT
GCCATAATGGGCACTGGCGCTGGCACCCCGGCCCTTCTGCATTTCTCCCGGAGTCACTGGTTTCTCGGCCCAA
ACCATGCTCCCCAGCAGTGGAATGGCGAGCACCTGCAGCTGGGCGGGCAGGCGGCAGGCGCGGAAGTACCCCT
CTCGCGGGACTGACCCCTGTTGTGGGCGAGTGGTCTCCCCCTTGGCGCCTCCTTGGCGAGGCCAGCCTCCACTCT
CCTCGTCTAGGTTTCTTTACCTCCAGGGATCAGCTGTGTGTGTGTGACCTCCCTACCGGGCTATCGGCCTCTTGG
GAGCCAGCGGCAGGGCCGGCACCTGCGTGCTGTGCGCGTGTGCGTGAGACAGAGCCCTTGCCCTGCTGCTGCC
CCGAGGGCTGCCCTGCCCTGGAAGGGCCCCCTTGCCTCCACACAGTGGAGTCTTCGAGACTTGGGAGCTGCTTG
GCCTCATTTTACGCCATGAGCAGACGGCCTGTGGTCCCTGGGCCTGAGGCACGGACTCGTAGCACCAGGGTTTGG
AGGCTGCGACCGCCCCGGAGAGCAGCTTACACTGGCGCCACAGAGGAGCCCCACGTGCACTCCCCGGCCTGCAT
CCGGCTTGGGTACACGGGCCAGAGGACTGGGGTGAATCAGGGGCCCTGTGCTGTGATGTTGAGAGCTGAGAAAA
ACCTCCAAGGCCCTGAGCCCCATGCCAGCCCTGCCTTGGTCCCCCAACCCCCAGAGCTTGGAGTCTGGGCCCA
CAGCCAGCCCTGCCTTGGTCCCTGAGCCTCAGAGCGTGAATTGCTGCCCTGTGGACACTGGCTGGGAAGGCAGG
TCTTCCCCTAGCACATGGGGACCCCGGCCCTCGAGGGTGACCTCCCTACCTTGCCCCCTGCCAGCCACCAAGCGCAG
GTGACGCGGGGGCCAGACTCCTGCCGGCCTCAGAGGACACCTGGCCACGACAGGCAGCTAGAAGGGCCGGTGGG
CAGCGGGGCCGGAAGCCCCACCTCACCACCTGAGGGCCCCCTGGGAGGCTCCTCTGGCCTGGCTGGGCTGGGTC
TGGGGCCGCCACAGGCCCCCTCAGGGGCGGCAGAGGCAACTCAGTGTCCCTGTTAGAGCAACACGGGTCCCTCC

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FIGURE 4372B

GTGGGGGGCTGGGTGCGGCCCCCTGCCGTGTATTTCCTCCCCAGGGAGTGGGGCCTCCCCGGGAGCTGACGCCAC
CACCTGCTTAGCCCTCACAGGGCCCCAAGGTGTCCGAGTGTGTTGGGTCTGAACGCGAAATAAAGAAATCCTCT
CAAAAAAAAAAAAAAAAAA

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FIGURE 4373

MANVSKKVSWSGRDRDDEEAAPLLRRRTARPGGGTPLLNGAGPGAARQSPRSALFRVGHMSSVELDDELDPDMDP
PHFPKKEIPHNEKLLSLKYESLDYDNSENQLFLEEERRINHTAFRTVEIKRWVICALIGILTGLVACFIDIVVEN
LAGLKYRVIKGNIDKFTEKGGLSFSLLLWATLNAAFVLVGSVIVAFIEPVAAGSGIPQIKCFLNGVKIPHVRLK
TLVIKVSGLSVVGGGLAVGKEGPMIHSGSVIAAGISQGRSTSLKRDFKIFEYFRDTEKRDFVSAGAAAGVSAA
FGAPVGGVLFSLLEGASFVNQFLTWRIFASMISTFTLNFVLSIYHGNMWDLSSPGLINFGREFDSEKMAYTIHEI
PVFIAMGVVGGVLGAVFNALNYWLTMFRIRYIHRPCLQVIEAVLVAAVTATVAFVLIYSSRDCQPLQGGSMSYPL
QLFCADGEYNSMAAAFFNTPEKSVVSLFHDPPGSYNPLTLGLFTLVYFFLACWTYGLTVSAGVFIPSLIGAAGW
RLFGISLSYLTGAAIWADPGKYALMGAAQLGGIVRMTLSLTVIMMEATSNVTYGFPIMLVMTAKIVGDVFIEG
LYDMHIQLQSVFPLHWEAPVTSHSLTAREVMSTPVTCLRRREKVGVIQVLDVLTASNHNHGFVVEHADDTPARL
QGLILRSQLIVLLKHKVFVERSNLGLVQRRRLKDFRDAYPRFPP IQSIHVSQDERECTMDLSEFMNPSPYTVPQ
EASLPRVFKLFRALGLRHLVVVDNRNQVGLVTRKDLARYRLGKRGLEELSLAQT

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[illegible]

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FIGURE 4375

MEPAPSEVRLAVREAIHALSSSEDGGHIFCTLES LKRYLGEMEPPALPREKEEFASAHFSPVLRCLASRLSPA WL
ELLPHGRLEELWASFFLEGPADQAFVLVLMETIEGAAGPSFRLMKMARLLARFLREGR LAVLMEAQCRQQTRPGFI
LLRETL LGKVVALPDHLGNRLQQENLAEFFPQNYFRLLGEEVVRVLQAVVDSLQGGLDSSVSFVSQVLGKACVHG
RQQEILGVLPRLAALTQGSYLHQRVCWRLVEQVPDRAMEAVLTGLVEAALGPEVLSRLLGNLVVKNKKAQFVMT
QKLLFLQSRLTTPMLQSL LGHLAMDSQRRPLLLQVLKELLE TWGSSSAIRHTPLPQQRHVSKAVLICLAQLGEPE
LRDSRDELLASMMAGVKCRLDSSLPPVRR LGMIVAEVVSARIHPEGPPLKFQYEEDELSLELLALASPQFAGDGA
SEAGTSLVPATAEPPAETPAEIVDGGVPQAQLAGSDSDLDSDDEFVPYDMSGDRELKSSKAPAYVRDCVEALTTS
EDIERWEAALRALEGLVYRSPTATREVSVELAKVLLHLEEKTCVVGFA GLRQRALVAVTVTDPAFVADYLT SQFY
ALNYS LRQRM DILDVLT LAAQELSRPGCLGRTPQPGSPSPNTPCLPEAAVSQPGSAVASDWRVVVEERIRSKTOR
LSKGGPRQGPAGSPSRFNSVAGHFFFLLQRFDRPLVTFD LLGEDQLVLGRLAHTLGALMCLAVNTTVAVAMGKA
LLEFVWALRFHIDAYVRQGLLSAVSSVLLSLPAARLLEDLMDELLEARSWLADVAEKDPDED CRTLALRALLLLQ
RLKNRLLPPASP

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FIGURE 4376

CGCTCCCGCACCGCCATCATGATCTGCCTGGTGCTGACCATCTTCGCTAACCTCTTCCCCGCGGCCTGCACCGGC
GCACACGAACGCACCTTCCTGGCCGTGAAGCCGGACGGCGTGACGCGCGGCTGGTGGGCGAGATTGTGCGGCGC
TTCGAGAGGAAGGGCTTCAAGTTGGTGGCGCTGAAGCTGGTGACGGCCTCCGAGGAGCTGCTGCGTGAGCACTAC
GCCGAGCTGCGTGAACGCCCCGTTCTACGGCCGCTTGTCAAGTATATGGCCTCCGGGCGCGGTGGTGGCCATGGTT
TGGCAGGGGCTGGACGTGGTGCACCTCGCGGGCGCTCATCGGAGCCACGAACCCGGCCGACGCCCCGCCCCGCGC
ACCATCCGCGGGGATTTCTGCATCGAGGTTGGCAAGAACCTGATTACGGCAGCGACTCGGTGGAGAGTGCCCCG
CGCGAGATCGCTCTCTGGTTCCGCGCAGACGAGCTCCTCTGCTGGGAGGACAGCGCTGGGCACTGGCTGTATGAG
TAGCCCCGCGAGATGCGCGTCACAGAGGCTCTCACACTCCAGCCTCCTCCAGGGCCCAGGTGGGCGGGCTTCTGGC
CCCACCCACAGCGCTTGGAGCATCCCTTTGGACGGGCTGCTGAACATCCACCTGTCTGGACGTTGCATGGAGGG
TGGCGCAGGCCTCTCCAATCCCTGGCGTACAGGGTTTCTGCCCCGAGGAGCTGCTCCAGGAGCCTGCGCGGCTCG
CCTGGAAACGTGCCAGGACACTGTCCTGGTGCCAGCCCCAACGTGGTCCAACGTTTTTTTATAATAAAGTCCTCG
TTTTCGTT

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FIGURE 4377

MICLVLTIFANLFPAACTGAHERTFLAVKPDGVQRRLVGEIVRRFERKGFKLVALKLVQASEELLREHYAELRER
PFYGRLVKYMASGPVVAMVWQGLDVVRTSRALIGATNPADAPPGTIRGDFCIEVGKNLIHGSDSVESARREIALW
FRADELLCWEDSAGHWLYE

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FIGURE 4378

GCTGAGGACGCGGACCCGCCATGGCGCGGAAGAAGGTGCGTCCGCGGCTGATCGCGGAGCTGGCCCGCCGCGTGCGCGCCCTGCGGGAGCAACTGAACAGGCCGCGCGACTCCCAGCTCTACGCGGTGGACTACGAGACCTTGACGCGGCCTTCTCTGGACGCCGGCTGCCGGTCCGGGGCTGGGCCGACGTGCGCCGCGAGAGCCGCTCTTGACAGCTGCTCGGCCCTCCCGCTCTTCGGCCTGGGCCGCTGGTCACGCGCAAGTCTTGCTGTGGCAGCACGACGAGCCGTGCTACTGGCGCCTCACGCGGGTGCGGCCCGACTACACGGCGCAGAACTTGGACCACGGGAAGGCCTGGGGCATCCTGACCTTCAAAGGGAAGACTGAGAGCGAGGCGCGGGAGATCGAACACGTGATGTACCATGACTGGCGGCTGGTGCCCAAGCACGAGGAGGAGGCCTTACCGCGTTACGCGCGCGCCGGAAGACAGCCTGGCCTCCGTGCCGTACCCGCCTCTCCTCCGGGCCATGATTATCGCAGAACGACAGAAAAATGGAGACACAAGCACCGAGGAGCCCATGCTGAATGTGCAGAGGATACGCATGGAACCTGGGATTACCTTGCAAAACAGGAAGACAAAGGAAGGGCCAAGGGCACCCCGCTCTAGAATGCCAGAACCAGCGGGTGGCCTTAGGGGCTGTGAGGCAGTGGGGACCTTATTGATGAAAGAAACCGTCTTTGCGTTACACCCGAGTCTGCCTCTCGGAGCAGGGAGCTCACCTTCCGCGACGTGTTCTGAGGGTCTGCATCTTAGGGGGGAGGGCTGGGGCAAATCGCCACCTGTGCCTTTCTCTGGCCCTGCTGCCCCACACCCAACTCCGAGGGCCCACGCTGGGGAAAGCGGGAAGCGCTCGCTCCCTTTCCCCCATTAGTGCTCTCTCTGCCTGGATCCCGGCAGAAGCTATGAAAGGGAATAAAGAGAAAAAGAGTAAAAAAAAAAAAAAAAAAAA

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FIGURE 4379

MARKKVRPRLIAELARRVRALREQLNRPRDSQLYAVDYETLTRPFSGRRLPVRAWADVRRRESRLQLLGRPLPLFG
LGRLVTRKSWLWQHDEPCYWRLTRVRPDYTAQNLDHGKAWGILTFKGKTESEAREIEHVMYHDWRLVLPKHEEEAF
TAFTPAPEDSLASVPYPPLLRAMI IAERQKNGDTSTEEPMLNVQIRMEPWDYPAKQEDKGRAKGTPV

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FIGURE 4380

CTGGGAGGCTGACGGCCCGCGGGCGTAAGCGGACTGCAGCCGCGAGCTCCTGGAGGCGGCGGGATCGAGGCGGCG
GCCGAGCCTGGAAACCTGGCCGGCGTCAGGCACATCATCCTGGTCCTCTCAGGAAAGGGGGGCGTTGGGAAAAGC
ACCATCTCCACGGAGCTGGCCCTGGCACTGCGCCATGCAGGCAAGAAGGTGGGAATCCTGGATGTGGACCTGTGT
GGCCCCAGTATACCCCGCATGCTCGGGGCGCAGGGCAGGGCTGTGCACCAGTGCAGCCGCGGCTGGGCACCCGTC
TTCCTGGACCGGGAGCAGAGCATCTCGCTCATGTCTGTGGGCTTCCTGCTGGAGAAGCCGGACGAGGCCGTGGTG
TGGAGAGGCCCAAGAAAAACGCGCTGATAAAGCAGTTTGTGTCCGACGTGGCCTGGGGGGAGCTGGACTACCTG
GTGGTGGACACGCCCCGGGGACCTCCGATGAGCACATGGCCACCATAGAAGCCCTGCGTCCCTACCAGCCCCTG
GGGGCCCTCGTGGTCACCACGCCCCAGGCGGTGTCCGTGGGGGACGTGAGGCGCGAGCTGACCTTCTGTAGGAAG
ACGGGCTTGCGGGTGATGGGAATCGTGGAGAATATGAGCGGCTTCACCTGCCCACACTGCACGGAGTGCACCAGC
GTCTTCTCCAGGGGCGGCGGAGAGGAGCTGGCCAGCTCGCCGGGGTGCCCTTCTTAGGCTCCGTGCCCTGGAC
CCTGCGCTCATGAGGACCCTGGAGGAGGGCCACGACTTCATCCAGGAGTTCCCCGGGAGCCCCGCCTTCGCTGCA
CTCACCTCCATAGCCCAGAAGATTCTGGACGCGACGCCCGCGTGCCTCCCCTGACTAAGGCCACCTTGCAGCCGC
TTTCCAGGGCCACCAAGGGCTCTGCTCCAGCCTCTCAGAGAAACAGAGGCCTGGGCTCGGTTCCCGGGCCCTGCA
GGGGCAGGCCCAGGCAGCGTCAGCGGGAGAGCTTCTCCCCGACCAGCCCAGCCCCAGGATGTGTGCGACCAGCAG
CTCTGCCTGGTTGGCCTGCAGTGCCGTGGTCTGCGTGCTCTGCAGCTGTGAGACGGGGGCGGCCTGGGCTCTCTT
CCCATCCATGTTGCCTACCTGTGCCCCTGGCAGCCGCGTGTCCACACAGTTAGCGGAGCGCAGGACTTCTGCAGT
CCTCAGGTGACCCCGGGCCTCCAGCACCTGGGTGCTGTATCTGTGTTTAGCTCGGGGAGTGCCCCCTAAGGG
GGCGAACTGACCTCAGGCATGTCTTGTAAGTGTAGAGGCGCCTGCCATTAAACGTGTCCGCTGCTGTGGCGACAG

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FIGURE 4381

MEAAAEFGNLAGVRHIIILVLSGKGGVGKSTISTELALALRHAGKKVGILDVDLCGPSIPRMLGAQGRAVHQCDRG
WAPVFLDREQSISLMSVGFLLEKPD EAVVWRGP KKNALIKQFVSDVAWGELDYL VVDTPPGTSDEHMTIEALRP
YQPLGALVVTTPQAVSVGDVRRELTFCRKTGLRVMGIVENMSGFTCPHCTECTSVFSRGGGEELAQLAGVPFLGS
VPLDPALMRTLEEGHDFIQEFPGSPAFAALTSIAQKILDATPACLP

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FIGURE 4382

CAAAACACCAAATGGCGGATGACGCCGGTGCAGCGGGGGGGCCCGGGGGCCCTGGTGGCCCTGGGATGGGGAACC
GCGGTGGCTTCCGCGGAGGTTTCGGCAGTGGCATCCGGGGCCGGGGTTCGCGGCCGTGGACGGGGCCGGGGCCGAG
GCCGCGGAGCTCGCGGAGGCAAGGCCGAGGATAAGGAGTGGATGCCCGTCACCAAGTTGGGCCGCTTGGTCAAGG
ACATGAAGATCAAGTCCCTGGAGGAGATCTATCTTCTCCCTGCCCCATTAAGGAATCAGAGATCATTGATTTCT
TCCTGGGGGCCCTCTCTCAAGGATGAGGTTTTGAAGATTATGCCAGTGCAGAAGCAGACCCGTGCCGGCCAGCGCA
CCAGGTTCAAGGCATTTGTTGCTATCGGGGACTACAATGGCCACGTCGGTCTGGGTGTTAAGTGCTCCAAGGAGG
TGGCCACCGCCATCCGTGGGGCCATCATCCTGGCCAAGCTCTCCATCGTCCCCGTGCGCAGAGGCTACTGGGGGA
ACAAGATCGGCAAGCCCCACACTGTCCCTTGCAAGGTGACAGGCCGCTGCGGCTCTGTGCTGGTACGCCTCATCC
CTGCACCCAGGGGCACTGGCATCGTCTCCGCACCTGTGCCTAAGAAGCTGCTCATGATGGCTGGTATCGATGACT
GCTACACCTCAGCCCGGGGCTGCACTGCCACCCTGGGCAACTTCGCCAAGGCCACCTTTGATGCCATTTCTAAGA
CCTACAGCTACCTGACCCCGACCTCTGGAAGGAGACTGTATTACCAAGTCTCCCTATCAGGAGTTCACTGACC
ACCTCGTCAAGACCCACACCAGAGTCTCCGTGCAGCGGACTCAGGCTCCAGCTGTGGCTACAACATAGGGTTTTT
ATACAAGAAAAATAAAGTGAATTAAGCCTGAA
AAA

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FIGURE 4383

MADDAGAAGGPGGPGGPGMGNRGGFRGGFGSGIRGRGRGRGRGRGRGARGGKAEDKEWMPVTKLGRRLVKDMKI
KSLEEIYLFSLPIKESEIIDFFLGASLKDEVKIMPVQKQTRAGQRTRFKAFVAIGDYNGHVGLGVKCSKEVATA
IRGAILAKLSIVPVRRGYWGNKIGKPHTVPCKVTGRCGSVLVRLIPAPRGTGIVSAFVPKKLLMMAGIDDCYTS
ARGCTATLGNFAKATFDASKTYSYLTPLWKETVFTKSPYQEFTDHLVKTHTRVSVQRTQAPAVATT

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FIGURE 4384

GGGAGTGTGGCGTTCTGTGAAGAGTTCGGTGCTAACCTCCCTCACGCGGCGGTGGCTGCCGGGACCCTAGCAGGT
TTCAGCTGGAGCGGCGGCGGCGGCAACATGGCAGAGACCGCGGCGGAGTGGGCGCTTCAAGACCAACTATGCT
GTGGAGCGCAAAATTGAGCCTTTCTACAAGGGCGGAAAAGCACAGCTGGACCAGACTGGCCAGCACCTCTTCTGC
GTCTGTGGCACCAGAGTCAACATTCTGGAAGTGGCCTCGGGGGCCGTGCTGCGGAGTCTGGAGCAGGAGGACCAG
GAGGACATCACTGCCTTTGACCTCAGCCCTGACAACGAGGTGCTGGTGACAGCCAGTCGGGCATTGCTGCTGGCT
CAGTGGGCGCTGGCAAGAGGGCAGCGTTACCGCCTGTGGAAGGCGATACACACGGCCCCCGTGGCCACCATGGCC
TTCGACCCACCTCCACTCTGCTAGCCACAGGTGGCTGTGATGGGGCCGTGCGCGTCTGGGACATCGTGGGCAC
TACGGGACACACCACTTCCGAGGCTCGCCCGGTGTCGTGCACCTAGTGGCCTTCCACCGGACCCTACACGCCTG
CTGCTCTTCTCCTCGGCCACGGATGCCGCCATCCGCGTGTGGTCACTGCAGGACCGGTCATGCCTGGCTGTGCTG
ACTGCCCACTACAGCGCCGTCACTCACTGGCCTTACAGCGCCGACGCCACACCATGCTCAGCTCCGGCCGTGAC
AAGATATGTATCATCTGGGACCTTCAAGAGCTGCCAGGCCACGAGGACCGTGCCTGTGTTTGAAGAGCTGGAGGCT
GCTGTGCTGTTGCCAGAGGAGCCAGTGTCCCAGCTGGGTGTGAAGTCCCCAGGGCTGTACTTTCTGACAGCTGGC
GACCAAGGCACTCTGCGCGTGTGGGAGGCAGCTTCTGGGCAGTGTGTGTACACGCAGGCCACGCCCGGGCCCT
GGGCAGGAGCTGACCACTGCACCCTGGCACACACCGCGGCGTGGTCTCACCGCCACCGCCGACCACAACCTG
TTGCTCTACGAGGCTCGCTCCCTGCGGCTGCAGAAACAGTTCGCTGGCTACAGTGAGGAGGTTTTGGATGTCCGG
TTTCTTGGGCGCGAGGACTCCACGTTGTCTGGCCTCCAATAGCCCCTGCCTAAAAGTGTTTGAAGCTGCAGACG
TCAGCCTGCCAGATCCTCCACGGCCACACGGATATCGTCTGGCCCTGGATGTGTTCCGGAAGGGGTGGCTCTTT
GCCAGCTGTGCCAAGGATCAGAGCGTCCGTATCTGGAGAATGAACAAGGCTGGCCAGGTGATGTGCGTGGCTCAG
GGTTCCGGTCACACACACAGTGTGGGCACCGTCTGCTGCTCTAGGCTGAAGGAGTCCTTCTGGTGACAGGCAGC
CAGGACTGCACTGTGAAGCTGTGGCCTCTTCCCAAAGCCTTGCTGTCCAAGAACACAGCCCCAGACAACGGCCCT
ATCCTCCTGCAGGCCCAGACCACTCAGCGCTGCCATGATAAGGACATCAACAGCGTGGCTATTGCCCCAACGAC
AAGCTGCTGGCCACAGGCTCAGAGACCGCACGGCCAAGCTCTGGGCCCTGCCACAGTGCCAGCTGCTGGGTGTC
TTCTCAGGCCACCGGCGTGGCCTCTGGTGCGTCCAGTTCTCTCCCATGGACCAGGTGCTGGCCACGGCCTCAGCT
GATGGCACCATCAAGCTCTGGGCACTCCAGGACTTCAGCTGTCTCAAGACATTTGAGGGGCACGATGCTTCTGTG
CTGAAGGTGGCCTTTGTGAGCCGTGGCACGCAGCTGCTGTCCAGCGGTTCCGATGGCCTCGTGAAGCTCTGGACC
ATCAAGAACAACGAGTGTGTGCGGACGCTGGATGCCCACGAGGACAAGGTCTGGGGGCTGCACTGCAGCCGGCTG
GACGACCACGCCCTCACTGGGGCCAGTGACTCCCGAGTCATCTCTGGAAGGATGTGACCGAGGCGGAGCAGGCA
GAGGAGCAGGCCAGGCAAGAGGAGCAGGTGGTCAGGCAGCAAGAGCTGGACAACCTGCTGCATGAGAAGCGGTAC
CTGCGGGCGCTGGGCCTGGCCATCTCCCTGGATCGGCCCCACACCGTGTGCTGCTCATCCAGGCCATCCGGAGG
GACCTTGAGGCTGCGAGAAGCTGGAAGCCACCATGCTCCGACTGCGGCGCGACCAGAAAGAGGCCCTGCTGCGC
TTCTGCGTCACGTGGAACACCAACTCGCGGCACTGCCACGAGGCCCAGGCCGTGCTGGGTGTGCTCTTGAGGCGA
GAGGCCCCCGAGGAGCTGCTGGCCTACGAAGGCGTGGGGCAGCGCTTGAGGCCCTGCTGCCCTACACTGAGCGG
CACTTTCAGCGGCTCAGCAGGACCTCCAGGCCCGCGCTTCTTGACTTCTGTGGCACAACATGAAGCTCCCT
GTGCCGGCGCGCCCCCACCCTGGGAAAACCCATAAAGGCGCACTGCCCCTAGCCGGTCCGGCCTCTCTCCAGT
CCATCCTGAACCCCTGGAAAACCCATAAAGGCCGCTCTCCTGGCAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 4385

MAETAAGVGRFKTNYAVERKIEPFYKGGKAQLDQTGQHLCVCGTRVNILEVASGAVLRSLEQEDQEDITAFDLS
PDNEVLVTASRALLLAQWAWQEGSVTRLWKAIHTAPVATMAFDPTSTLLATGGCDGAVRVWDIVRHYGTHHFRGS
PGVVHLVAFHPDPTRLLLFSSATDAAIRVWSLQDRSCLAVLTAHYSAVTSLAFSADGHTMLSSGRDKICIIWDLQ
SCQATRTVPVFESVEAAVLLPEEPVSQLGVKSPGLYFLTAGDQGTLRVWEAASGQCVYTQAQPPGPGQELTHCTL
AHTAGVVLTAADHNLLLYEARSRLQKQFAGYSEEVL DVRF LGPEDSHVVVASNSPCLKVFELQTSACQILHGH
TDIVLALDVFRKGWLFASCAKDQSVRIWRMNKAGQVMCVAQGSNGTHSVGTVCCSRLKESFLVTGSQDCTVKLWP
LPKALLSKNTAPDNGPILLQAQTTQRCHDKDINSVAIAPNDKLLATGSQDRTAKLWALPQCQLLGVSFSGHRRGLW
CVQFSPMDQVLATASADGTIKLWALQDFSLKTFEGHDASVLKVAFVSRGTQLLSSGSDGLVKLWTIKNNECVRT
LDAHEDKVWGLHCSRLDDHALTGASDSRVILWKDVTEAEQAEQARQEEQVVRQQEELDNLLHEKRYLRALGLAIS
LDRPHTVLTVIQAIRRDPEACEKLEATMLRLRRDQKEALLRFVCTWNTNSRHCHEAQAVLGVLLRREAPEELLAY
EGVRAALEALLPYTERHFQRLSRTLQAAFLDFLWHNMKLPVPAAPTPWETHKGALP

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FIGURE 4386

GGCACGAGGCAAGAGCAAAGGGGCCAGCACCCCCGCTGCCTCCACGCTGCCACCGCCAACGGGGCCCGACCGGC
GCGCTCCGGGACTGCGCTTTCCGGCCCCGACGCGCCGCCAACGGGCCTTGCAGCCCGGCCGGCCCTCGCTTGGC
GGCGGTGTCGACTTCTACGACGTCGCCTTCAAGGTCATGCTGGTGGGGGACTCGGGTGTGGGGAAGACCTGTCTG
CTGGTGCATTCAAGGATGGTGTCTTCTGGCGGGGACCTTCATCTCCACCGTAGGCATTGACTTCCGGAACAAA
GTTCTGGACGTGGATGGTGTGAAGGTGAAGCTGCAGATGTGGGACACAGCTGGTCAGGAGCGGTTCCGCAGTGTT
ACCCATGCCTACTACCGGGATGCTCATGCTCTGCTGCTGCTCTACGATGTACCAACAAGGCCTCCTTTGACAAC
ATCCAGGCCTGGCTGACCGAGATCCACGAGTACGCCCAGCACGACGTGGCGCTCATGCTGCTGGGGAACAAGGTG
GACTCTGCCCATGAGCGTGTGGTGAAGAGGGAGGACGGGGAGAAGCTGGCCAAGGAGTATGGACTGCCCTTCATG
GAGACCAGCGCCAAGACGGGCCTCAACGTGGACTTGGCCTTCACAGCCATAGCAAAGGAGTTGAAGCAGCGCTCC
ATGAAGGCTCCCAGCGAGCCGCGCTTCCGGCTGCATGATTACGTTAAGAGGGAGGGTCGAGGGGCCTCCTGCTGC
CGCCCTTGAACCTGGCTGAGCTCAGTCCTCTGGAGGAAGCCGCCAGTCCCTAGAAGGCTGGACAGAGGGTCTCC
AGGCCCTTCTGACTTTGTTGCCAGTGGCCAACGCCCGAGTGTCTGTTTTTCAGGAGCCCCAGGTCAAGCCTTGTC
CCTTCCTCCTCCCAGCAACAGTCCCAACAAGCAGGCTTCTGAGAGCCCGTGGCCGCACACTGGCCGCCACGAAA
AGCAGTCTTCTGCACGGGACGGGGAGCGGCAAGTGGACAGACTTTGCCACGGTGCTCTGCTGCCCCCTCCTGGGC
ACGTCCAGGTGAGGGAGGGCTGGGGCTGGCACCACGCACAGTGCCTAACCTAGAAAAGCCATGTCTTCAGCCGC
ACATGCTCAGGCAGCTAAGGGAGGACGCTGCCACGCCTGGGACAGAAGGCTTCACTGCTAATCACATCGTGCA
TCTGTGTCTCTGGGAGCTGCCTGCTCCCGCCCCACCCTCTAGGAGGCTCTGGCTCAAACAGCAATAGGGTCTTC
CTCACTGACCTTGGAGGATGCCTGTGGCCTTGTGATAAAATGTGGGAAATCACAGAAAACACCAGAAACAACAAC
TGCCAGCCCCGGCCTGGCCACAGGTGAGGTCTGTGATTTCCGAGCACGCTCCACCTTGCACTCAACTTGGCCTTTT
GATTGCACAAGCCTTTGTTTTTCAGTCCTAGTGAATAAAGTTGTGTTTTCTGGAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAA

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FIGURE 4387

MLVGDSGVGKTCLLVRFKDGAFAGTFISTVGIDFRNKVLDVDGVKVKLQMWDTAGQERFRSVTHAYYRDAHALL
LLYDVTNKASFDNIQAWLTEIHEYAQHDVALMLLGKVKVDSHERVVKREDGEKLAKEYGLPFMETS AKTGLNVDL
AFTAI AKELKQRSMKAPSEPRFLHDYVKREGRGASCCRP

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GGGCGGGAGGCTGCTTCCCAAGGACCGTAGATGCCTCTCTAGAGCATAGAGCTCAGGCCAAGAGTGCCCGCTACAACCGCTTCTCCGGGGGGGCCAGCAATCTTCCCACCCAGACGTCACCACAGGGACCAGAATGGAAACGACCTTCGGACCCGCTTTTTCAGCCGTACCAACCATCACAAAAGCTGACGGGACCAGCACCTACAAGCAGCACTGCAGGACAGCATGCCCCCATCAGCACTCCCCGCCGCTCCGACTCCGCCATCTCTGTCCGCTCCCTGCACTCAGAGTCCAGCATGTCTCTGCGCTCCACATTCTCACTGCCCGAGGAGGAGGAGGAGCGGAGCCACTGGTGTGTTGCGGAGCAGCCCTCGGTGAAGCTGTGCTGTGAGCTCTGCTGCAGCGTCTTCAAAGACCCCGTGATACCACGTGTGGGCACACGTTCTGTAGGAGATGCGCCTTGAAGTCAGAGAAGTGTCCCGTGGACAACGTCAAACCTGACCGTGGTGGTGAACAACATCGCGGTGGCCGAGCAGATCGGGGAGCTCTTCATCCACTGCCGGCACGGCTGCCGGGTAGCGGGCAGCGGGAAGCCCCCATCTTTGAGGTGGACCCCGAGGGTGCCCTTACCATCAAGCTCAGCGCCCGGAAGGACCACGAGGGCAGCTGTGACTACAGGCCTGTGCGGTGTCCCAACAACCCAGCTGCCCCCGCTGCTCAGGATGAACCTGGAGGCCACCTCAAGGAGTGCGAGCACATCAAATGCCCCCACTCCAAGTACGGGTGCAGTTTATCGGGAACCAGGACACTTACGAGACCCACCTGGAGACTTGCCGCTTCGAGGGCCTGAAGGAGTTTCTGCAGCAGACGGATGACCGCTTCCACGAGATGCACGTGGCTCTGGCCAGAAGGACCAGGAGATCGCCTTCTGCGCTCCATGCTGGGAAAGCTCTCGGAGAAGATCGACCAGCTAGAGAAGAGCCTGGAGCTCAAGTTTTCAGCTCCTGGACGAAACCAGAGCAAGCTCAGCGAGGACCTCATGGAGTTCCGGCGGGACGCATCCATGTAAATGACGAGCTGTCCACATCAACGCGCGGCTGAACATGGGCATCCTAGGCTCCTACGACCTCAGCAGATCTTCAAGTGCAAAGGGACCTTTGTGGGCCACCAGGGCCCTGTGTGGTGTCTCTGCGTCTACTCCATGGGTGACCTGCTCTTCAGTGGCTCCTCTGACAAGACCATCAAGGTGTGGGACACATGTACACCTACAAGTGTGAGAAGACACTGGAGGGCCATGATGGCATCGTGTGGCTCTCTGCATCCAGGGGTGCAAACCTACAGCGGCTCTGCAGACTGCACCATCATTGTGTGGGACATCCAGAACCTGCAGAAAGGTGAACACCATCCGGGCCATGACAACCCGGTGTGCACGCTGGTCTCCTCACACAACGTGCTCTTCAGCGGCTCCCTGAAGGCCATCAAGGTCTGGGACATCGTGGGCACCTGAGCTGAAGTTGAAGAAGGAGCTCACAGGCCTCAACCACTGGGTGCGGGCCCTGGTGGCTGCCAGAGCTACCTGTACAGCGGCTCCTACCAGACAATCAAGATCTGGGACATCCGAACCCTTGACTGCATCCACGTCTCTGCAGACGCTCTGGTGGCAGCGTCTACTCCATTGCTGTGACAAATCACCACATTGTCTGTGGCACCTACGAGAACCTCATCCACGTGTGGGACATTGAGTCCAAGGAGCAGGTGCGGACCCTCACGGGCCACGTGGGCACCGTGTATGCCCTGGCGGTCTATCTCGACGCCAGACCAGACCAGTCTTCAGTGCACTCTACGACCGGTCCCTCAGGGTCTGGAGTATGGACAACATGATCTGCACGCAGACCCTGCTGCGTCACCAGGGCAGTGTACCCGCGCTGGCTGTGTCCGGGGCCGACTCTTCTCAGGGGCTGTGGATAGCACTGTGAAGTTTGGACTTGCTTAACAGGATCCAGGCCAGGCTGTGGTTTTCCCTGAACCAGCCCTGGACCTTCTGAGCCAGGCTGGCCACATGGGGTGGTCTCGGGGTTTTCTGCCTGCCCCGTGGGCATAGGTGGACAGGCTCTGGCAGCCGGGCAGTGCCCTCCCCGTCCCATGCTCGGGCAGCCCTCCCTCTACTCGGCACCTGTCTTGTGCTGCCAGCCCCCTCTCTGGGTGCCAGGTACGACGCTTGCCCCGGGCCACCCTCCATCCCCACCCTCCATCCCCACCCTAGATGGAGCGAGGGCCCTTTTACTCACCTTTTCTACCGTTTTTAGACTGTATGTAGATTTGGTTACCTCCTGGTTGAAATAAATGCTCCACAGACTGTGGCTGTGAGTGGGGACAGCTCCTCGGGACAGGGGGCTGTGTGTGGCCTTGAGGTTGGTGTGCACAGGCACTGGCTGCTGTGAGTGGGGGGGCATGGGGCAGTTTCTTTGGTGGACCCAGGACTTCGGCCCACTCCGGGGCTCCCTCCCTGCTAGGAGGCAACTCGTCACACCCAAGCTGCTGGCCTCCAGTCCCATCTCCCCAACACATGTGCCCCCAAAAAGTGAGCCAGGCACCTCTGTTTTCTGCTGTTTTATTGACAGCCGACGGCAGCGCCTTGCCAGACCTCCCTGCCCACCTGCTGGAGCCCAGCCTGTGCCGCTCTGAGGAGAGGCCTGGGGGACAGCTGGGCACGTCCACTCGCAGGGAAACACGGGGTGAGACAGCAGGAAGGGGCCCTGCACGCCGGGACGCCACCTCCGCCAGCCGCTCCACCCGCCCCACACCACAATCGCTGGTTTTTCGGCATTTTTTAAATTTTTTTTTTAAAGAACGTCAAAGTTGTGCCAACACTGTGGATCAGCAAAACGATAGAGGAGACCAATCAGTACTTCTTGAGGGGGCAGGAGGAGAGAGGAAAAGGGAGGGCGAGAATGACCACACAACACAGCCTTGGAACATGAGCAGAAAGCTCGTGGGAATCCACTGGGGTGGATGGGCTGCCTGCACAGCCCCCTGGAGAGGGGGCCAGGCACCCCTCAGAGGAGCTGCAAGCCGTGGCCTGGCCTGCTACATGCCCTGCTTCCACGTGGCTGCCACGCTGACACCCACATTACCAAACCCACCGCGCCCTGGGACGACGCCAGGAGGACACGGCCGCCGAGAGAGGCACAACCTCGAGTTCTTGGGGCGCAGAGAACTTAGGAGAGAAGCAGGAGAGGCCCCCGCAGCAGCAGCCCCGGGCCAGCCTTCCACCTGTGCTAGCAGACTTGGGGCCTCCACTCTGGCCGGAGGAAGGACCGCAGACAGCCTGGGCCTCTAACAGCTTTTGTCCGGAGCTAGACTTCGTGTCTTTTTCAGTTGGTAAATGGTTTTTCTATAGAAATCAATAATATTTCTTTCTTTAAATATATATTTGTAAAGTTATACCTTTTTTGTCTCTGGGGAAATCCGCCTCAGCTCATTCCCAATAAATTAATACTCTTGATAAAAAAAAAAAAAAAAAAGAAAAAAAAAAAA

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FIGURE 4389

MPPISTPRRSDSAISVRSLHSESSMSLRSTFSLPEEEEEPEPLVFAEQPSVKLCCQLCCSVFKDPVITTCGHTFC
RRCALKSEKCPVDNVKLTVVVNNIAVAEQIGELFIHCRHGCRVAGSGKPPIFEVDPRGCPFTIKLSARKDHEGSC
DYRPVRCNNPSCPPLLRLMNLEAHLKECEHIKCPHSGYCTFIGNQDTYETHLETCTCFEGLKEFLQQTDDRFHEM
HVALAQKDQEI AFLRSM LGKLSEKIDQLEKSLELKFVDLDENQSKLSEDLMEFRRDASMLNDEL SHINARLNMGI
LGSYDPQQIFKCKGTFVGHQGPVWCLCVYSMDLLFSGSSDKTIKVWDTCTTYKCQKTLEGHGDIVLALCIQGCK
LYSGSADCTII VWDIQNLQKVNTIRAHDPVCTLVSSHNVLFSGSLKAIKVWDIVGTELKLLKELTGLNHWVRAL
VAAQSYLYSGSYQTIKIWDIRTLDCIHVLQTSGGSVYSIAVTNHHIVCGTYENLIHVWDIESKEQVRTLTGHVGT
VYALAVISTPDQTKVFSASYDRSLRVWSMDNMICTQTLLRHQGSVTALAVSRGRLFSGAVDSTVKVWTC

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FIGURE 4390

AGCCCGCGACCTTTATCCCGCGCGTTGCGGTCAAGATGGCGCTGGTGGCTTCTGTTGCGAGTCCGGCGCGCGTTC
TGCTCCGCGCGGGGGGCGCGGCTCCCGGGCGCGGCCCTCGGGCGGACGGAGCGGGCGGCCGGCGGAGACGGCG
CGCGGCGCTTCGGGAGCCAGCGGGTGCTGGTGGAGCCGGACGCGGGCGCAGGGGTCGCTGTGATGAAATTCAAGA
ACCCCCAGTGAACAGCCTGAGCCTGGAGTTTCTGACGGAGCTGGTCATCAGCCTGGAGAAGCTGGAGAATGACA
AGAGCTTCCGCGGTGTCAATTCTGACCTCGGACCGCCCGGGTGTCTTCTCGGCCGGCCTGGACCTGACGGAGATGT
GTGGGAGGAGCCCCGCCACTACGCTGGGTACTGGAAGGCCGTTCAGGAGCTGTGGCTGCGGTTGTACCAAGTCCA
ACCTGGTGCTGGTCTCCGCCATCAACGGAGCCTGCCCCGCTGGAGGCTGCCTGGTGGCCCTGACCTGTGACTACC
GCATCCTGGCGGACAACCCAGGTACTGCATAGGACTCAATGAGACCCAGCTGGGCATCATCGCCCTTTCTGGT
TGAAAGACACCCTGGAGAACACCATCGGGCACC GGCGGCGGAGCGTGCCCTGCAGCTGGGGCTGCTCTTCCCGC
CGGCGGAGGCCCTGCAGGTGGGCATAGTGGACCAGGTGGTCCCGGAGGAGCAGGTGCAGAGCACTGCGCTGTCAG
CGATAGCCCAGTGGATGGCCATTCCAGACCATGCTCGACAGCTGACCAAGGCCATGATGCGAAAGGCCACGGCCA
GCCGCTGGTCACGCAGCGCGATGCGGACGTGCAGAACTTCGTGAGCTTCATCTCAAAGACTCCATCCAGAAGT
CCCTGCAGATGTACTTAGAGAGGCTCAAAGAAGAAAAAGGCTAACGATTGGGCTGCCACAGGCTTACGGCCACAC
GTGCCCCGTGTGGGTCCCAGGGAGGTCTTAAACAAGGTATTTTCAACTT

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FIGURE 4391

MALVASVRVPARVLLRAGARLPGAALGRTERAAGGGDGARRFGSQRVLVEPDAGAGVAVMKFKNPPVNSLSLEFL
TELVISLEKLENDKSFRGVILTSDRPGVFSAGLDLTEMCGRSPAHYAGYWKAVQELWLRLYQSNLVLVSAINGAC
PAGGCLVALTCDYRILADNPRYCIGLNETQLGIIAPFWLKDLENTIGHRAAERALQLGLLFPPAEALQVGIVDQ
VVPEEQVQSTALSAIAQWMAIPDHARQLTKAMMRKATASRLVTQRDADVQNEVVSFISKDSIQKSLQMYLERLKEE
KG

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FIGURE 4392

GGCCCGCGGGACTCAGACCAGCGGGGAGCGCGGCCTCCGCCCTTGGGGCCCTCCCGCCGGGCGGAGACCCAAGC
CCCCAACGCCAGGCCCTGCCCTGGAAGCGCTCGCGGCCCGGCGCCTGGACGGGGGAGTTGCTGCTCTTTGGCGTA
AATTGCAATCGATTAGGGATCGTTTTCTCAGAATCAAGTTAGAAGTGAGAGTTCAGATAAGTGAGGCCGCCATTGC
TGCTTTGAACACCTCAGAAGGGGAGAAATCGATTATCAGGAGTGAAAAAGAAGAGCTTGCTAGGAGTCAAAGAAA
ATAATAAAAAGTCCAGCACTAGGGCTCCTTCACCTACCAAACGCAAAGACCGCTCAGATGAGAAGTCCAAGGATC
GCTCAAAAGATAAAGGGGCCACCAAGGAGTCGAGTGAGAAGGATCGCGGCCGGGACAAAACCCGAAAGAGGCGCA
GCGCTTCCAGTGGTAGCAGCAGTACCAGGTCTCGGTCCAGCTCGACTTCCAGCTCAGGCTCCAGCACCAGCACTG
GCTCAAGCAGTGGCTCCAGCTCTTCCTCAGCATCCAGCCGCTCAGGAAGCTCCAGCACCTCCCGCAGCTCCAGCT
CTAGCAGCTCTTCTGGCTCTCCAAGTCCTTCTCGGCGCAGACACGACAACAGGAGGCGCTCCCGCTCCAAATCCA
AACCACCTAAAAGAGATGAAAAGGAGAGGAAAAGGCGGAGCCCATCTCCTAAGCCACCAAAGTGACATTGGGA
GACTCACCCGGAATGTGACAAAGGATCACATCATGGAGATATTTTCCACCTATGGGAAAATTAAATGATTGACA
TGCCCGTGGAAGGATGCATCCCCATCTGTCCAAAGGCTATGCGTACGTAGAGTTTGAGAATCCAGATGAAGCCG
AGAAGGCGCTGAAGCACATGGATGGAGGACAAATTGATGGCCAGGAGATCACTGCCACCGCCGTGCTGGCCCCCT
GGCCTAGGCCACCCCCCAGGAGATTAGCCCTCCCAGGAGAATGTTGCCACCACCGCCTATGTGGCGCAGGTCTC
CCCCACGGATGAGGAGAAGGTCCCGCTCCCCGAGGCGCAGGTCCCCCGTGCGCCGGAGATCACGGTCCCCGGGCC
GCGGCCGCCACAGGAGCCGCTCCAGCTCCAACCTCTCCCGATAAACAGGCCACTGAAGCTCTCGCCCCGTGTAAC
TATACCCACCCAGCTCAGTTTTGTCACTTTTCTAGCCAAAGGAAGACCAGTAGGAAAGCAAACCCCTGACTCTG
GCAGGATTTGCAGGCAGCAGGCAGCACCCCTCTGCCAGCCGGGCCCCGGCTGCAGAAGTGCTGTTGGTTTGATG
CTGTGTGCCTGTCAAGATTCCCTCCGGTTTTCTGGCTAGAAAGCTCATCCGTTTCCGGTTTCTAAGAGTCAGTTC
AGTGGCAGAGCCACCAGGGAAGTGAGGCTCTTGGGGGTGGTTTGACCCCTGCTTACCTGGGAGCACACTTTTCC
CTTCCCCGATGACCTGGGATGGTGGCCAGGCCGTGCCCTTGCTGTTGCTGGGCAGTGTCTTTTGGAAAGGGAGC
TGCCCCAGGCTTTAGTGAGCTGCCAACCCCTGTTAGGCCTGGCCTCTCGAGGCCTCTTCTGACCTCAAGGGTCAC
ACCCCTCAAAGATCCTCTCACCCATGGTAGTTGCTGCTCGTGGTTCTGTCTGTCCGTGCACCGATGCACACACC
GCACCCACCACTGTACTCTGAAATTGGCGAGTGAGTGGAGAGCCAGCTCTGCGGAGTCATCACGCAGCCATGGT
TGTGCCTGCCGTTTCAATGGTGGTCTTTTCAAGTTATCTTGGCAACATGTACATTGCTTTTATTTTTTTTCTTTTTG
CTTTCATTGTACAGTCAGTACTATAAAATTTCTTTTTGAGTTTTATACCTTTGTAGCATTTTAGATGACATTGT
GTTTGTACTTTGTTGTGTAGAGTGGAAGAATTGTGTTGAATAAACCCAAGATCGGAATGCAAAAAAAAAAAAAA
AAAAAAAAAAAAA

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FIGURE 4393

MDLSGVKKKSLGKVENNKKSTRAPSPTRKDRSDEKSKDRSKDKGATKESSEKDRGRDKTRKRRSASSGSSST
RSRSSSTSSSGSSTSTGSSSGSSSSASSRSGSSSTSRSSSSSSSSGSPSPSRRRHDNRRRSRSKSKPPKRDEKE
RKRRSPSPKPTKVHIGRLTRNVTKDHIMEIFSTYGIKIDMPVERMHPLSKGYAYVEFENPDEAEKALKHMDG
GQIDGQEITATAVLAPWPRPPRRFSPPRRMLPPPPMWRRSPPRMRRRSRSFRRRSFVRRRSRSPGRRRHRSRSS
SNSSR

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FIGURE 4394

GAGCGGCGCCGGCCTCGGCGGCTGAGGAAAGCAGGAGGAGGTGGCGGCGGCGGGAAGATGCTGCTCTTTGGCGTA
AATTGCAATCGATTAGGGATCGTTTCTCAGAATCAAGTTAGAAGTGAGAGTTCAGATAAGTGAGGCCGCCATTGC
TGCTTTGAACACCTCAGAAGGGGAGAAATGGATTATCAGGAGTGAAAAAGAAGAGCTTGCTAGGAGTCAAAGAAA
ATAATAAAAAGTCCAGCAGTAGGGCTCCTTCACCTACCAAACGCAAAGACCGCTCAGATGAGAAGTCCAAGGATC
GCTCAAAAGATAAAGGGGCCACCAAGGAGTCGAGTGAGAAGGATCGCGGCCGGGACAAAACCCGAAAGAGGCGCA
GCGCTTCCAGTGGTAGCAGCAGTACCAGGTCTCGGTCCAGCTCGACTTCCAGCTCAGGCTCCAGCACCAGCACTG
GCTCAAGCAGTGGCTCCAGCTCTTCTCAGCATCCAGCCGCTCAGGAAGCTCCAGCACCTCCCGCAGCTCCAGCT
CTAGCAGCTCTTCTGGCTCTCCAAGTCCTTCTCGGCGCAGACACGACAACAGGAGGCGCTCCCGCTCCAATCCA
AACCACCTAAAAGAGATGAAAAGGAGAGGAAAAGGCGGAGCCCATCTCCTAAGCCCAACAAAGTGCACATTGGGA
GACTCACCCGGAATGTGACAAAAGGATCACATCATGGAGATATTTTCCACCTATGGGAAAATTAAATGATTGACA
TGCCCGTGGAAGGATGCATCCCCATCTGTCCAAGGCTATGCGTACGTAGAGTTTGAGAATCCAGATGAAGCCG
AGAAGGCGCTGAAGCACATGGATGGAGGACAAATTGATGGCCAGGAGATCACTGCCACCGCGGTGCTGGCCCCCT
GGCCTAGGCCACCCCCCAGGAGATTAGCCCTCCCAGGAGAATGTTGCCACCACCGCCTATGTGGCGCAGGTCTC
CCCCACGGATGAGGAGAAGGTCCCGCTCCCCGAGGCGCAGGTCCCCCGTGCGCCGGAGATCAGGTCCCCGGGCC
GCCGCCGCCACAGGAGCCGCTCCAGCTCCAACCTCTCCCGATTAACAGGCCACTGAAGCTCTCGCCCCCTGTAACCT
TATACCCCAACCAGCTCAGTTTTGTCACTTTTCTAGCCAAAGGAAGACCAGTAGGAAAGCAAACCTTGACTCTG
GCAGGATTTGCAGGCAGCAGGCAGCACCCCTCTGCCAGCCGGGCCCCGGCTGCAGAAGTGCTGTTGGTTTGATG
CTGTGTGCTGTCAAGATTCCCTCCGGTTTTCTGGCTAGAAAGCTCATCCGTTTTCCGGTTTTCTAAGAGTCAGTTC
AGTGGCAGAGCCACCAGGGAAGAGTGAGGCTCTTGGGGGTGGTTTGACCCTGCTTACCTGGGAGCACACTTTTCC
CTTCCCCGATGACCTGGGATGGTGGCCAGGCCGTGCCCTTGCTGTTGCTGGGCAGTGTCTTTTGAAAGGGAGC
TGCCCCAGGCTTTAGTGCAGCTGCCAACCTGTTAGGCCTGGCCTCTCGAGGCCTCTTCTGACCTCAAGGGTCAC
ACCCCTCAAAGATCCTCTCACCCATGGTAGTTGCTGCTCGTGGTTCTGTCTGTCCGTGCACCGATGCACACACC
GCACCCCACTGTACTCTGAAATTGGCGAGTGAGTGAGAGCCAGCTCTGCGGAGTCATCACGCAGCCATGGT
TGTGCTGCGGTTTATGGTGGTCTTTCAGGTTATCTTGGCAACATGTACATTGCTTTTATTTTTTTCTTTTTTG
CTTTCATTGTACAGTCAGTACTATAAAATTTCTTTTTGAGTTTTTATACCTTTGTAGCATTTTAGATGACATTGT
GTTGTACTTTGTTGTGTAGAGTGGAAGAATTGTGTTGAATAAACCAAGATCGGAATGCAAAAAAAAAAAAAA
AAAAAAAAAAAAA

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FIGURE 4395

MDLSGVKKKSL LGVKEN NKSS TRAPSP TKRKDRSDEKSKDRSKDKGATKESSEKDRGRDKTRKRRSASSGSSST
RSRSSSTSSSGSSTSTGSSSGSSSSSASSRSGSSSTSRSSSSSSSSGSPSPSRRRHDNRRRSRSKSKPPKRDEKE
RKRRSPSPKPTKVHIGRLTRNVTKDHIMEIFSTYGKIKMIDMPVERMHPHLSKGYAYVEFENPDEAEKALKHMDG
GQIDGQEITATAVLAPWPRPPRRFSPPRMLPPPPMWRRSPPRMRRRSRSPRRRSPVRRRSRSPGRRRHRSRSS
SNSSR

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FIGURE 4396

GCGAGGTTCTGCGCGGGCGCGGAAGACGGGCGGCGGTGGCGGAAGGGTTCTGGGACGGTACGCACCAGCCACCTT
CGCGCCGAAGGCGGTAGGGCGCCACGGAGAGGAACCGCTCTAGGCACGTAAGGCCTCGTGAGGTTGCGTCGCGCG
CGGAGCACTCTGGGACTTGTAGTTCTGGAGATGGAGCGAGCTGTGCCGCTCGCGGTGCCTCTGGGTCAGAGGTGT
TCCAGGCCCTTGCGAGCGGCTCCATATGACCATCTTCTCCCAGAGCGTCTCACCATGTGGGAAGTTTCTGGCGGCTG
GCAACAATTACGGGCAGATTGCCATCTTCAGCTTGTCCTCTGCTTTGAGCTCAGAAGCCAAAGAGGAAAGTAAGA
AGCCGGTGGTGACTTTCCAAGCCCATGATGGGCCCGTCTATAGCATGGTTTCCACCGATCGACATCTGCTTAGTG
CTGGGGATGGGGAGGTGAAGGCCTGGCTTTGGGCGGAGATGCTCAAGAAGGGCTGTAAGGAGCTGTGGCGTCGTC
AGCCTCCATACAGGACCAGCCTGGAAGTGCCTGAGATCAACGCTTTGCTGCTGGTCCCCAAGGAGAATTCCCTCA
TCCTGGCTGGGGGAGACTGTGAGTTGCACACTATGGACCTTGAAACTGGGACTTTACGAGGGTCTCCGGGGCC
ACACAGACTACATCCACTGCCTGGCACTGCGGGAAAGGAGCCAGAGGTGCTGTGAGGTGGCGAGGATGGAGCTG
TTCGACTTTGGGACCTGCGCACAGCCAAGGAGGTCCAGACGATCGAGGTCTATAAGCACGAGGAGTGCTCGAGGC
CCCACAATGGGCGCTGGATTGGATGTTTGGCAACTGATTCCGACTGGATGGTCTGTGGAGGGGGCCAGCCCTCA
CCCTCTGGCACCTCCGATCCTCCACACCCACCACCATCTTCCCCATCCGGGCGCCACAGAAGCACGTCACCTTCT
ACCAGGACCTGATTCTGTGCTAGCTGGCCAGGGCCGCTGCGTCAACCAGTGGCAGCTGAGCGGGGAGCTGAAGGCCC
AGGTGCCTGGCTCCTCCCCAGGGCTGCTCAGCCTCAGCCTCAACCAGCAGCCTGCCGCGCCTGAGTGCAAGGTCC
TGACAGCTGCAGGCAACAGCTGCCGGGTGGATGTCTTACCAACCTGGGTTACCGAGCCTTCTCCCTGTCCTTCT
GATCTCTGACGACACCCCCAGCCAGCTCAGGGTTTTAGAGTGTTCATTTCTTTTTTTTTTTTACAATAA
AGTTTCAGGCTTTTTTAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 4397

MTIFSQSVSPCGKFLAAGNNYGQIAIFSLSSALSSEAKEESKKPVVTFQAHDGPVYSMVSTDRHLLSAGDGEVKA
WLWAEMLKKGCKELWRRQPPYRTSLEVPEINALLVPKENSILLAGGDCQLHTMDLETGTFTRVLRGHTDYIHCL
ALREERSPEVLSGGEDGAVRLWDLRTAKEVQTIEVYKHEECRPHNGRWIGCLATDSDWMVCGGGPALTTLWHLRSS
TPTTIFPIRAPQKHVTFYQDLILSAGQGRCVNQWQLSGELKAQVPGSSPGLLSLSLNQQPAAPECKVLTAAGNSC
RVDVFTNLGYRAFSLSF

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FIGURE 4398

GCGGCGGGCGCAGACAGCGGGCGGGCGCAGGACGTGCACTATGGCTCGGGGCTCGCTGCGCCGGTTGCTGCGGCTC
CTCGTGCTGGGGCTCTGGCTGGCGTTGCTGCGCTCCGTGGCCGGGGAGCAAGCGCCAGGCACCGCCCCCTGCTCC
CGCGGCAGCTCCTGGAGCGCGGACCTGGACAAGTGCATGGACTGCGCGTCTTGACGGGCGCGACCGCACAGCGAC
TTCTGCCTGGGCTGCGCTGCAGCACCTCCTGCCCCCTTCCGGCTGCTTTGGCCCATCCTTGGGGGCGCTCTGAGC
CTGACCTTCGTGCTGGGGCTGCTTTCTGGCTTTTGGTCTGGAGACGATGCCGCAGGAGAGAGAAGTTCACCACC
CCCATAGAGGAGACCGGCGGAGAGGGCTGCCAGCTGTGGCGCTGATCCAGTGACAATGTGCCCCCTGCCAGCCG
GGGCTCGCCCACTCATCATTCAATTCATTCATTCTAGAGCCAGTCTCTGCCTCCCAGACGCGGCGGGAGCCAAGCT
CCTCCAACCACAAGGGGGGTGGGGGGCGGTGAATCACCTCTGAGGCCCTGGGCCCAGGGTTCAGGGGAACCTTCCA
AGGTGCTCTGTTGCCCTGCCTCTGGCTCCAGAACAGAAAGGGAGCCTCACGCTGGCTCACACAAAACAGCTGACA
CTGACTAAGGAACTGCAGCATTTGCACAGGGGAGGGGGGTGCCCTCCTTCCTTAGGACCTGGGGGCCAGGCTGAC
TTGGGGGGCAGACTTGACACTAGGCCCCACTCACTCAGATGTCCTGAAATTCCACCACGGGGGTACCCCTGGGGG
GTTAGGGACCTATTTTAACTAGGGGCTGGCCCACTAGGAGGGCTGGCCCTAAGATACAGACCCCCCACTC
CCCAAAGCGGGGAGGAGATATTTATTTTGGGGAGAGTTTGGAGGGGAGGGAGAATTTATTAATAAAAGAATCTTT
AACTTTAAAAAAAAAAAAAAAAAAAA

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FIGURE 4399

MARGSLRRLRLRLVLGLWLALLRSVAGEQAPGTAPCSRGSWSADLDKMDCASCRARPHSDFCLGCAAAPPAPF
RLLWPILGGALSITFVLGLLSGFLVWRRRCRRREKFTTPIEETGGEGCPAVALIQ

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FIGURE 4400

GGCACGAGGATCTCCTTCGCAGTGCAGCTCCTTCAACCTCGCCATGGCCTCTGCCGGAATGCAGATCCTGGGAGT
CGTCCTGACACTGCTGGGCTGGGTGAATGGCCTGGTCTCCTGTGCCCTGCCCATGTGGAAGGTGACCGCTTTCAT
CGGCAACAGCATCGTGGTGGCCAGGTGGTGTGGGAGGGCTGTGGATGTCTGCGTGGTGCAGAGCACCGGCCA
GATGCAGTGCAGGTGTACGACTCACTGCTGGCGCTGCCACAGGACCTGCAGGCTGCACGTGCCCTCTGTGTCTAT
CGCCCTCCTTGTGGCCCTGTTTCGGCTTGTCTGGTCTACCTTGTCTGGGGCCAAGTGTACCACCTGTGTGGAGGAGAA
GGATTCCAAGGCCCGCCTGGTGTCTACCTCTGGGATTGTCTTTGTCTATCTCAGGGGTCTGACGCTAATCCCCGT
GTGCTGGACGGCGCATGCCGTCTACCGGACTTCTATAACCCCCCTGGTGGCTGAGGCCCAAAAGCGGGAGCTGGG
GGCCTCCCTCTACTTGGGCTGGGCGGCCTCAGGCCCTTTTGTGTGGGTGGGGGGTGTGTGTGTGCACTTGCCC
CTCGGGGGGGTCCAGGGCCCCAGCCATTACATGGCCCGCTACTCAACATCTGCCCTGCCATCTCTCGGGGGCC
CTCTGAGTACCCTACCAAGAATTACGTCTGACGTGGAGGGGAATGGGGGCTCCGCTGGCGCTAGAGCCATCCAGA
AGTGGCAGTGCCCAACAGCTTTGGGATGGGTTCGTACCTTTTGTCTTCTGCTCTCTGCTATTTTTCTTTTACTGA
GGATATTTAAAATTTCATTTGAAAACAGGCAAGGTGTTGACTCAGACTCTCACTTAGGCTCTGCTGTTTCTCAC
CCTTGGATGATGGAGCCAAAGAGGGGATGCTTTGAGATTCTGGATCTTGACATGCCCATCTTAGAAGCCAGTCAA
GCTATGGAACATAATGCGGAGGCTGCTTGTGTGTGGCTTTGCAACAAGACAGACTGTCCCCAAGAGTTCTCTGCT
GCTGCTGGGGGCTGGGCTTCCCTAGATGTCTACTGGACAGCTGCCCCCATCTACTCAGGTCTCTGGAGCTCCTC
TCTTACCCCTGGAAAAACAAATGATCTGTTAACAAAGGACTGCCACCTCCGGAATTCTGACCTCTGTTTCTCT
CCGTCTGATAAGACGTCCACCCCCAGGGCCAGGTCCCAGCTATGTAGACCCCGCCCCCAGCTCCAACACTGC
ACCCTTCTGCCCTGCCCCCTCGTCTCACCCCTTTTACACTCACATTTTTATCAAATAAAGCATGTTTGTAGT
GCAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 4401

MASAGMQILGVVLTLLGWVNGLVSCALPMWKVTAFIGNSIVVAQVVWEGLWMSCVVQSTGQMCKVYDSLLALPQ
DLQAARALCVIALLLVALFGLLVYLAGAKCTTCVEEKDSKARLVLTSGIVFVISGVLTLLIPVCWTAHAVIRDFYNP
LVAEAQKREL GASLYLGWAASGLLLLGGGLLCCTCPSGGSQGPSHYMARYSTSAPAI SRGPSEYPTKNYV

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FIGURE 4402

CAGGACTCCCGTGAGGGGGAACGGCCCGTGAAACGCGCGGAGCTGCTCGCGCCCCGCCAGTCGCCCCAGGGCT
TCCCCACACCCACGGAGTGAAGTCAGCCGCGGCCCTGCCTGGGAGGAACTTACCGTCTACCGGGAAGGTGGCCA
GCAGATGTGTCGGGCCTGGTGAGAGGGTGAGGCGAGACGGCCCGATCGCCAGGGCCCCGGAAGCTGCGGAGGTG
ACCCCCGCTGGCCTTAGCTCAGGGACACCCCTGGATTACGTGGGAGCCCCCTGCTCCTGCCTCCCCCGTCCCACC
ACTGAAGCTGTTGGGCCAGGCCAGTCACTAGTAACGGCCCTCCTGCACTGGCCATGCCCATGCCCACGGAGGGCA
CCCCGCCACCTCTGAGTGGCACCCCCATCCCAGTCCAGCCTACTTCCGCCACGCAGAACCTGGATTCTCCCTCA
AGAGGGCCAGGGGGCTCAGCCGGAGCCTCCACCTCCGCCCCCTGCCAAGGGCAGCATTCCCATCAGCCGCTCT
TCCCTCCTCGGACCCAGGCTGGCACCAGCTGCAGCCCCGGCGGGTGTATTCCGGGGCGAGGCCTCAGAGACTC
TGCAGAGCCCTGGGTATGACCCAAGCCGGCCAGAGTCTTCTTCCAGCAGAGCTTCCAGAGGCTCAGCCGCTGG
GCCATGGCTCCTACGGAGAGGTCTTCAAGGTGCGCTCCAAGGAGGACGGCCGGCTCTATGCGGTAAAGCGTTCCA
TGTCACCATTTCCGGGGCCCCAAGGACCGGGCCCGCAAGTTGGCCGAGGTGGGCAGCCACGAGAAGGTGGGGCAGC
ACCCATGCTGCGTGCGGCTGGAGCAGGCCTGGGAGGAGGGCGGCATCCTGTACCTGCAGACGGAGCTGTGCGGGC
CCAGCCTGCAGCAACACTGTGAAGCCTGGGGTGCCAGCCTGCCTGAGGCCCAGGTCTGGGGCTACCTGCGGGACA
CGCTGCTTGCCCTGGCCCATCTGCACAGCCAGGGCCTGGTGACCTTGATGTCAAGCCTGCCAACATCTTCTGG
GGCCCCGGGGCCGCTGCAAGCTGGGTGACTTCGGACTGCTGGTGGAGCTGGGTACAGCAGGAGCTGGTGAGGTCC
AGGAGGGAGACCCCGCTACATGGCCCCCGAGCTGCTGCAGGGCTCCTATGGGACAGCAGCGGATGTGTTAGTC
TGGGCCTCACCATCCTGGAAGTGGCATGCAACATGGAGCTGCCCCACGGTGGGGAGGGCTGGCAGCAGCTGCGCC
AGGGCTACCTGCCCCCTGAGTTCACTGCCGGTCTGTCTTCCGAGCTGCGTTCTGTCCTTGTATGATGCTGGAGC
CAGACCCCAAGCTGCGGGCCACGGCCGAGGCCCTGCTGGCACTGCCTGTGTTGAGGCAGCCGCGGGCCTGGGGTG
TGCTGTGGTGCATGGCAGCGGAGGCCCTGAGCCGAGGGTGGGCCCTGTGGCAGGCCCTGCTTGCCCTGCTCTGCT
GGCTCTGGCATGGGCTGGCTCACCTGCCAGCTGGCTACAGCCCTGGGCCCGCCAGCCACCCCGCCTGACTCAC
CACCTGCAGTTTGCTCCTGGACAGCAGCTTCTCCAGCAACTGGGATGACGACAGCCTAGGGCCTTCACTCTCCC
CTGAGGCTGTCTTGGCCCGACTGTGGGGAGCACCTCCACCCCCCGGAGCAGGTGCACACCCAGGGATGCCCTGG
ACCTAAGTGACATCAACTCAGAGCCTCCTCGGGGCTCCTTCCCCTCCTTTGAGCCTCGGAACCTCCTCAGCATGT
TTGAGGACACCCTAGACCAACCTGAGCCCCAGATTCTGCCTCTGCACTTTTAACCTTTTATCCTGTGTCTCTCC
CGTCGCCCTTGAAAGCTGGGGCCCTCGGGAACCTCCATGGTCTTCTCTGCCTGGCCGTGTCTAATAAAAAAGTAT
TTGAACCTTGAAAAAAGAGAG

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FIGURE 4403

MLERPPALAMPMPTEGTPPPLSGTPIPVPAIFRHAEPGFSLKRPRGLSRSLPPPPPAKGSIPISRLFPPTPGWH
QLQPRRVSFRGEASETLQSPGYDPSRPESFFQQSFQRLSRLGHGSYGEVFKVRSKEDGRLYAVKRSMSPFRGPKD
RARKLAEVGSHEKVGQHPCCVRLEQAWEEGGIYLLQTEL CGPSLQQHCEAWGASLPEAQVWGYLRDTLLALAH LH
SQGLVHLDVKPANIFLGPRGRCKLGDFGLLVELGTAGAGEVQEGDPRYMAPELLQGSYGTAADVSLGLTILEVA
CNMELPHGGEGWQQLRQGYLPPEFTAGLSSELRSVLVMMLEPDPKLRATAEALLALPVLRQPRAWGVLWCMAAEA
LSRGWALWQALLALLCWLWHGLAHPASWLQPLGPPATPPDSPPCSLLLDSSFSSNWDDDSLGP SLSPEAVLARTV
GSTSTPRSRCTPRDALDLS DINSEPPRGSFPSFEPRNLLSMFEDTLDPT

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FIGURE 4404

GGCCACCGCCGCCGCCGCCGCCGCCGAGCTGTCCCTGCGCGCGCTCTGCCCTTGGCGGAGCCGACCGCAGTGCGCTC
AGGCGTCCGGTGCCTCCCCAGCCTCCGCCCCGGCGCGGGGGCGACGACTCGCGCGTGCGCAGCGCCGGAGGGGC
GCGGGCTGGGACCCCTAGCCAGCGCGTGCGCCGATCGAGCGCAGGGCGATGGGTGGGCGCCGGGCGCCGGGCGC
CAGGCAGTGATGGGCCTTCCCGCGCTGCGGCCCCACTGAGGAGGAGGCTCGGGGACAGCAGGAGCACGGGCTGCC
CGCGCGGTGCGGACCATGGCGTTCCTGGCCGGGCGCGCCTGCTGGACTGGGCCAGCTCGCCGCCGCACCTGCAG
TTCAATAAGTTCTGTGCTGACCGGGTACCGGCCCCGCCAGCAGCGGCTCGGGCTGCCTGCGCAGCCTCTTCTACCTG
CACAAACGAAGTGGGCAACATCTACACGCACGGGCTGGCCCTGCTGGGCTTCTTGGTGCTGGTGCCAATGACCATG
CCCTGGGGTTCAGCTGGGCAAGGATGGCTGGCTGGGAGGCACACATTGCGTGGCCTGCCTTGACCCCCCTGCAGGC
TCCGTGCTCTATCACCTCTTTATGTGCCACCAAGGGGGCAGCGCTGTGTACGCCCGGCTCCTCGCCCTGGACATG
TGTGGGGTCTGCCCTTGTCAACACCCCTTGGGGCCCTGCCCATCATCCACTGCACCCTGGCCTGCAGGCCCTGGCTG
CGCCCGGCTGCCCTGGTGGGCTACACTGTGTTGTGCGGGTGTGGCCGGCTGGCGTGCTCTCACCGCCCCCTCCACC
AGTGCTCGGCTCCGGGCATTTGGATGGCAGGCTGCTGCCCCCTACTGGTATTTGGGGCCCGGGGAGTGGGTCTG
GGTTACAGGGGCTCCAGGCTCCCTGCCCTGCTACCTGCGCATGGACGCACTGGCGCTGCTTGGGGGACTGGTAAAT
GTAGCCCGTCTGCCCCGAGCGCTGGGGACCTGGCCGCTTTGACTACTGGGGCAACTCCACCAGATCATGCACCTG
CTGAGCGTGGGCTCCATCCTGCAGCTGCACGCCGGCGTGTGCCCCGACCTGCTCTGGGCTGCCACCACGCCTGT
CCCCGGGACTGAGCTGCCATGCCAGCCTGCCACAGCAGCCTCCTAGAGTTAGCAACACCAGGTGTTCTCCCAA
CTCGTCTGCAAGGGGCTGGCTCCTTGGATGCTTCCAGCTCATGAGATGTCTCAGCAGGAGCCCTGTTACCCGTT
CTTCCCTGTGGACTGACCTCTTCCACCCACGCCGTGGCGCTCCAACCTTCTTCCCTGCCTTTTCCCTCCAAGCTC
CTATTTTACTGTGTGCTGAGCTGGAAGGAAACCTTTCCCTCTTGGGACCTCTTTACCCTCTGTGACCTGTGGGGTTAG
ACCAGAGAGGGGACTCTGGGGTTCAGTCTTGTCTGAGAGTTCAAGTCTTCCAGGCCGCCAGCCAGAGCCTCCT
CACCTATCCTGTTCTTCCACCAGGCTGTGGCCAGTCTTCTGATCTCCATCTTTCTGCCCTGCATACCAGCC
CTCCCAGCAGCCACAAGCTTGCCCGCCCTGGCTCCCTCTGCCCAGAGACTATGGAGTAAGGCATTCAGGACAAAA
GGACCAAGGGGGCGTGACCCGCTCTGTACAGCTGGCCACAGGCACAAGGGCTGCAGCTGCTTCTTCCAGGAAA
CTGACACAGGGAGCTCAGCGGCCTCAGATCCTGGGACCCCTGGGCGTGCTGCCCTCCACCTTGAGTGCCATAC
TCCCAACAGCTCCAGGTACCCACCGGGGATGTGCTGCTCAGGAAACCTCTTTGCTCCACACAGCATGGGGCTT
CAGCTGCTGGCCCCAAGGCCAGGAGCGCTGGGTTCTGCAGCAGGGCTCAGCCTCAGGGGCGTTAAGACCCTGGATG
ACATCAATAAAGGGACAGGAAGGGCCATGTTGCCACATGAGCAAGCTTGGGTGCTCCCAAGGTTCAAATACTTTT
TATTAGACACGGCCAGGCAGAGAAGACCATGGGAGTTCCCGAGGGGCCCCAGCTTTCAAGGGCGACGGGAGAGAC
ACAGGATAAAAGGTTAAAAGTGCAGAGGCAGAGTCTGGGGCTCAGGTTGGGTCTAGGGTGTCTCAAACAGGCTG
AGGAGGTTCCGAGGCTCAAAGGAGGGGAAGGAGCCCCGAGGAGGCTCTGAGTTGATGTCACTTAGGTCCAGGGCA
TCCCTGGGAGGAGAGAGTAGTGACACTCAGGATCCAAAAGCTAGCCCTGCCACCCCAGCCCCCTGGACCTGCTTA
CCTGGGTGTGCACCTGCTCCGGGGGGTGGAGGTGCTCCCCACAGTCCGGGCCAGGACAGCCTCAGGGGAGAGTGA
AGGCCTGCAGGAGGGCAGGCGAGACAAGGAGGGTGTCCAGGGCTAGGGAGTGCCGGATGAAACCAGCTCTGTCCC
TGTGCAGGCTCCAGGCTCCCGCTGACAAACAGGCAGGGAGCCACAGTCAGGGACAATAAAAACTTGGTGCACCTC
TGAAAGCAGCACTTGGACAGCCTTCAAAGTCCTTCCATCTGGCTGCACTCCAAGGCCCCCTCTGTCTTTTCAGA
ACACATGGACTTGGAGGCAGATTTGAAATAAACTTTTAGTAAATGT

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FIGURE 4405

MAFLAGPRLLDWASSPPHLQFNKFVLTGYRPASSGSGCLRSFYLHNELGNIYTHGLALLGFLVLVPMTMPWGQL
GKDGWLGGTHCVACLAPPAGSVLYHLEMCHQGGSVAVYARLLALDMCGVCLVNTLGALP I I HCTLACRPWLRPAAL
VGYTVLSGVAGWRALTAPSTSARLRAFGWQAAARLLVFGARGVGLGSGAPGSLPCYL RMDALALLGGLVNVARLP
ERWGPGRFDYWGNSHQIMHLLSVGSILQLHAGVVPDLLWAAHHACPRD

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FIGURE 4406

GGGAGACTGTCAGAGGACAACGCCCCCTAGGTCTCCTGGGAGACCCCGAAGCGACCCCGGGGGCAGCCCGGCGCG
TGTCGCGGGCGAGGGTGACCTATCCTTGGTTGAGAGCGATGGGGACACAAGCCCTGCAGGGCTTCCTCTTTCTCCT
CTTCTCCCCGCTGCTGCAGCCGCGTGGGGCCTCGGCTGGGAGCCTGCACAGTCCAGGCCTGTCCGAATGCTTCCA
GGTGAATGGGGCTGACTACCGCGGCCACCAGAACCAGCACTGGCCCGCGCGGGGCGGGCCCGCGTGCCTCTTCTG
GGACCAGACGCAGCAACACAGCTACAGCAGCGCCAGCGACCCCCACGGCCGCTGGGGGCTGGGCGCGCACAACTT
CTGCCGTAAACCAGACGGTGACGTGCAGCCGTGGTGCTACGTGGCTGAGACAGAGGAGGGCATCTACTGGCGCTA
CTGCGACATCCCCCTCCTGTACATGCCAGGCTACCTGGGATGCTTTGTGGACTCAGGGGCACCCCCAGCCCTCAG
CGGCCCCAGCGGCACCTCCACGAAGCTCACGGTCCAGGTGTGCCTACGCTTCTGCCGCATGAAGGGGTACCAGCT
GGCGGGCGTGGAGGCCGGTTACGCCTGCTTCTGTGGCTCTGAAAGCGACCTGGCCCGGGGACGCCTGGCCCCCGC
CACCGACTGTGACCAGATCTGTTTCGGCCACCCTGGACAGCTGTGTGGCGGCGATGGGCGGCTGGGCGTCTATGA
AGTGTGCGGTGGGCTCCTGCCAGGGGAAGTGGACAGCGCCTCAGGGCGTCATCTACTCCCCGGACTTCCCGGACGA
GTACGGGCGCGACCGGAAGTGCAGCTGGGCCCTGGGCCCGCCAGGCGCGCGCTGGAGCTCACCCTCCGCCTCTT
CGAGCTGGCCGACCCGCGCGACCGGCTGGAGCTGCGCGACGCGGCTTCGGGCAGCCTGCTCCGCGCCTTCGATGG
CGCCCGCCACCGCGCTCCGGGCGGCTGCGCCTGGGCACTGCCGCGCTGCTGCTCACCTTCCGAAGCGACGCGCG
CGGCCACGCGCAAGGCTTCGCGCTCACCTACCGCGGGCTGCAGGACGCGCGCTGAGGACCCAGAGGCCCCCGAGGG
CTCGGCCCAGACCCCGCGGCGCCCTCGACGGGGCCAACGTGAGCTGCAGCCCCAGGCCTGGGGCTCCGCCGGC
CGCGATTGGGGGAGCTGTCTGCTGGCTCCGGGAAAAGGGCCCCCGGCGCTGGGGGCTTCCAGGGGGCCCCAGGAGA
AGCTGGGCTGTGTGGTACCAACAGCCCCGAGGGGTGGCCTTGCCCTGCTCCCCGGGGACCCCCAGGCTGAGGGT
TCTGCCGCGGGCTACCGGCCTCTGAGTGCCTCCAGCCAGAGCTCCCTGCGCTCGCTCATCTCCGCTCTCTGACTC
TGGGCCCCGAGGGTCCGCTGGGCCCGCGCGCGGCGAGATGGACACCTGAGATGCTGTGCTGCGCCCTGCCTCGGC
CTTGCGCCTGTGTAGGGGCAGCTCGGCCTCTGGTGCCTTGGGGAGACCAAAAGTCGGACAGGAAACATCTGGTG
CTATTATCTGGGACTTGGCCTGACCGTGGGGGTCCAGATGGTCCAGGCCCTCTCCATGGACCTGTATGTGGGGGT
GGTCTCTGGTTTCGGAGGTCTTTGAACCCCTCTGGGGGTGGTCTTGACTGCCGTCCTCAGTGAGAGGTACAGG
TCAGCAAAAACAGTCAAAAACCCCCACAGATTTTGAATAAAGGATCTACTTTGGTAAAAAAAAAAAAAAAAAAAA

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FIGURE 4407

MGTQALQGFLFLLFLPLLQPRGASAGSLHSPGLSECFQVNGADYRGHQNRITGPRGAGRPCLFWDQTQQHSYSSAS
DPHGRWGLGAHNFCRNPDGDVQPCYVAETEEGIYWRYCDIPSCHMPGYLGCFVDSGAPPALSGPSGTSTKLTIVQ
VCLRFRCRMKGYQLAGVEAGYACFCGSESDLARGRLAPATDCDQICFGHPGQLCGGDGRLGVYEVSVGSCQGNWTA
PQGVIIYSPDFPDEYGPDRNCSWALGPPGALELTFRLELADPRDRLELRDAASGSLLRAFDGARPPPSGPLRLG
TAALLLTFRSDARGHAQGFALTYRGLQDAAEDPEAPEGSAQTPAAPLDGANVSCSPRPGAPPAAIGGAVCWLREK
GPRRWGLPGAPGEAGLCGTNSPEGWPCPAPPGTFRRLRVLPRTATGL

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FIGURE 4408

GCTGGGAGTAGAGGGCAGAGCTCCCACCCCGCCCCGCCCCAGGGGGCGCCCCGGGCCCGCGCGAGAGGAGGCA
GAGGGGGCGTCAGGCCGCGGGAGAGGAGGCCATGGGCGCGCGCGGGGCGCTGCTGCTGGCGCTGCTGCTGGCTCG
GGCTGGACTCAGGAAGCCGGAGTCGCAGGAGGCGGCGCCGTTATCAGGACCATGCGGCCGACGGGTTCATCACGTC
GCGCATCGTGGGTGGAGAGGACGCCGAACCTCGGGCGTTGGCCGTGGCAGGGGAGCCTGCGCCTGTGGGATTCCCA
CGTATGCGGAGTGAGCCTGCTCAGCCACCGCTGGGCACTCACGGCGGCGCACTGCTTTGAAACCTATAGTGACCT
TAGTGATCCCTCCGGGTGGATGGTCCAGTTTGGCCAGCTGACTTCCATGCCATCCTTCTGGAGCCTGCAGGCCTA
CTACACCGTTACTTCGTATCGAATATCTATCTGAGCCCTCGCTACCTGGGGAATTACCCCTATGACATTGCCTT
GGTGAAGCTGTCTGCACCTGTACCTACACTAAACACATCCAGCCCATCTGTCTCCAGGCCTCCACATTTGAGTT
TGAGAACCGGACAGACTGCTGGGTGACTGGCTGGGGGTACATCAAAGAGGATGAGGCACTGCCATCTCCCCACAC
CCTCCAGGAAGTTCAGGTCGCCATCATAAACAACTCTATGTGCAACCACCTCTTCCTCAAGTACAGTTTCCGCAA
GGACATCTTTGGAGACATGGTTTGTGCTGGCAATGCCAAGGCGGGAAGGATGCCTGCTTCGGTGACTCAGGTGG
ACCCTTGGCCTGTAACAAGAATGGACTGTGGTATCAGATTGGAGTCGTGAGCTGGGGAGTGGGCTGTGGTCGGCC
CAATCGGCCCCGGTGTCTACACCAATATCAGCCACCCTTTGAGTGGATCCAGAAGCTGATGGCCCAGAGTGGCAT
GTCCCAGCCAGACCCCTCCTGGCCGCTACTCTTTTTCCCTCTTCTCTGGGCTCTCCCACTCCTGGGGCCGGTCTG
AGCCTACCTGAGCCCATGCAGCCTGGGGCCACTGCCAAGTCAGGCCCTGGTTCTCTTCTGTCTTGTGTTGTAATA
AACACATTCCAGTTGATGCCTTGCAAGGCATTCTTCAAAA

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FIGURE 4409

MGARGALLLALLLARAGLRKPESQEAAPLSGPCGRRVITSRIVGGEDAELGRWPWQGSRLWDSHVCGVSLLSHR
WALTAAHCFETYSDLSDPSGWMVQFGQLTSMPSFWSLQAYYTRYFVSNIYLSPRYLGNSPYDIALVKLSAPVTTYT
KHIQPICLQASTFEFENRTDCWVTGWGYIKEDEALPSPHTLQEVQVAIINNSMCNHLFLKYSFRKDFGDMVCAG
NAQGGKDACFGDSGGPLACNKNGLWYQIGVVSWSGVCGRPNRPGVYTNISHHFEWIQKLMAQSGMSQPDPSWPLL
FFPLLWALPLLGPV

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FIGURE 4410A

GCAGCGCGGCCAGGCGGGGTGCGAGTGGCGCAGTTGGAGCCCGTTGCGGCCCTGAGGAAGCGAGGAGGCGTCG
GCGTCGGCTGAGGCGGGCGGACCGGCGAGGCGAGGCGGCGGCCCCAGGCCCGAGGGACTCGGGAGCTCGAGCAGC
GGCGGCGGCAAGACCTCTCCCCCTCGGAGGCGGCGGGCGGAGGCGGCGGGAGCGGTGGTGTCCCCCCCCGGGCACG
GGGCCATGTACAACGGGATCGGGCTGCCGACGCCCCGGGGCAGCGGCACCAACGGCTACGTCCAGCGCAACCTGT
CCCTGGTGCGGGGCGCCGGGGTGAGCGGCCCTGACTACAAGGGAGAGGAGGAAGTGC GGCGCCTGGAGGCTGCC
TGGTGAAGCGCCTAATCCTGACATCCTGGACCACGAGCGCAAGCGGCGCGTTCGAGCTGCGATGCCTCGAGCTGG
AGGAGATGATGGAAGAGCAGGGGTACGAGGAACAGCAAAATTCAGGAAAAAGTGGCGACCTTTTCGACTCATGTTGC
TGGAGAAGGATGTGAACCTGGGGGCAAGGAGGAGACCCAGGGCAGAGGCCAGCGGTACCGGAGACTCACCAGT
TGGCAGAATTAAATGAGAAGAAGAATGAAAGACTCCGTGCTGCCCTTTGGCATCAGTGATTCTTACGTAGATGGCA
GCTCTTTTGATCCTCAGCGTCTGTGCCCGAGAAGCTAAACAACAGCTCCTGAGCCTCCCAAACCTTACAGCCTTG
TTCGGGAGTCTAGCAGTTCTCGCTCACCAACCCCAAAGCAGAAAGAAAGAAAAAGAAAGATAGAGGACGCA
GGTCAGAGAGCAGCTCTCCTCGACGGGAGAGAAAAGAAAGCTCAAAAGAAAGAAAGCACAGGTGAGAATCTGAGT
CCAAGAAACGTAAGCATAGGTCTCCACTCCAAAGAGCAAAACGTAAATCTAAGGACAAAAAGCGAAAGCGGTCTC
GAAGTACAACACCAGCCCCAAGAGCCGCCGGGCCACCGTTCAACTTCTGCTGACTCTGCTTCTCCTCCGATA
CTTCCCGCAGTCGGTCTCGAAGTGCTGCAGCTAAAAGTCTATACAAGTGCCTTGGCTGGGCGAAGTCTTCCCTG
CTTCAGGGCGACGCGGGGAGGGAGATGCGCCTTTCAGTGAAACAGGTACTACCAGCACACAACGGCCTAGTAGCC
CGGAGACTGCTACGAAACAGCCTAGCAGCCCTTATGAAGACAAAAGATAAAGACAAGAAGGAGAAATCTGCAACTC
GACCTAGCCCCCTCTCCGAAAGGAGCAGCACAGGCCAGAACCACTGCTCCACTCCGCTCCTTGCTGAGCGAC
ATGGCGGCTCCCCACAACCCCTTGCAACCACCCCTTAAGCCAGGAGCCAGTGAACCCCCATCTGAGGCCTCTC
CAACTCGGGACCGTTCACCACCTAAGTCTCCCGAGAACTTCCCAGTCTTCTTCTCAGAGAGCAGCCCACCAT
CCCCTCAACCTACCAAAGTTTCTCGGCATGCCAGCTCTCCCCAGAAAGTCTTAAACCTGCTCCAGCTCCAGGGT
CCCACCGAGAGATTCTTCTTCTCCACATCTAAGAATCGCTCACATGGCCGAGCAAAACGGGATAAATCACATT
CTCATACCCCTCCCGTAGGATGGGGAGGTCCCGTAGCCCTGCCACCGCTAAGAGAGGGCGATCTCGGTCTCGAA
CCCCTACCAAGAGAGGTCAATTCTCGATCCCGATCTCCCAGTGGCGTAGGTCCAGGTCTGCACAGAGGTGGGAA
GATCTAGAAGCCCCCAGCGACGTGGCGCTCTAGGTCTCCTCAGCGACCAGGCTGGTCTAGGAGCAGAAATACCC
AGAGAAGAGGCAGGTCTAGGTACGAAGGCGAGGGAGGTCCACTCTAGATCCCCAGCCACTAGGGGTAGATCTC
GTTCTAGAACACCAGCCCGCGGGGCGAGGTCCCGCTCTAGAACACCTGCCAGGCGGAGATCAGATCCAGAAGTCTC
CCACCAGGCGTAGGTCTCGGTCTAGAACACCAGCCGGAGGGGCGAGGTCTCGGTCTAGAACACCTGCTAGGCGCA
GATCTAGGACCCGATCACCAGTACGACGCAGGTCTCGTAGTAGATCACCAGCCAGGAGAAGTGGCAGGTACGCT
CTAGAACCCAGCTAGACGTGGCCGCTCAGCTCCAGAACCCAGCCAGACGTGGCCGCTCAGCTCTAGAACCC
CAGCTAGACGCAGTGGTCTCAGCTCCAGAACACCAGCCAGGAGAGGGAGGTCTCGGTCTAGGACACCAAGAC
GAGGAAGATCCCGCAGTAGAAGCTTAGTTAGACGTGGAAGATCTCACTCTAGAACACCTCAAAGAAGAGGCAGAT
CTGGCTCATCTTCAGAGCGGAAAAACAAATCCAGAACATCTCAAAGAAAGAGCAGGTCCAATTCAAAGCCAGAAA
TGAAGAAATCTCGCATTTCTTCAAGGCGGAGCAGGTCTCTCTTACCACGGTCCAAAGCAAAATCTCGCTTGT
CTTTGAGGCGCAGCCTTTCAGGGTCTTCCCCATGCCCTAAACAAAAGTCAAGACACCACCCAGGCGCAGTCGCT
CTGGATCCTCCCAACCTAAAGCTAAATCTAGAACGCCACCCAGACGCAGTCGCTCCAGTTCTTCTCCGCCACCTA
AACAGAAATCTAAGACACCATCAAGACAAAGTCAATCCAGTTTCTCTCTCATCCTAAAGTGAAATCTGGAACAC
CACCGAGGCAAGGGTCCATAACAAGTCCCCAGGCCAATGAGCAATCTGTAACGCCACAGAGACGGAGCTGTTTTG
AATCATACCTGACCCTGAGTTGAAATCTAGGACCCCTTCTAGACATAGCTGCTCAGGGTCTCTCTCTCTAGAG
TGAAATCTAGCACACCTCCAGACAGAGCCCATCTAGGTCTATCTCCACAACCCAAAGTGAAGGCAATAATAT
CACCAAGACAAAGAAGCCATTCTGGCTCCTCTTCTCCAAGTCTTAGTAGGGTGACGTGCGAACAACCTCCACGGC
GAAGCAGATCAGTATCTCCCTGCTCCAATGTGGAATCCAGATTGTTGCCAAGATACAGTCATTCTGGGTCTCTCT
CACCAGATACCAAAGTGAAACCTGAAACACCGCCAAGACAAAGTCACTCAGGGTCTATTTACCATAACCCAAAG
TAAAGGCCCAAACCTCCACCGGGGCCAAGTCTTCTGGATCAAAGTCAACATGTCCCCAAGAGAAGTCTAAAGACT
CACTAGTTCAAAGTTGCCCTGGATCCCTCTCTCTGTGCAGGAGTAAATCTAGCACACCACCAGGCGAGAGCT
ATTTTGGTGTCTCATCTCTGCAACTGAAAGGACAATCTCAAACCTCACCAGACCACAGATCTGATACTCAAGTC
CAGAAGTGAGACAGAGTCATTGAAATCACCATCTCTGCAGAGCAAATCTCAAACATCACCTAAGGGAGGTGGT
CCAGGTCTTCATCTCCAGTCACTGAGCTGGCATCCAGATCTCCAATAAGACAAGATAGAGGTGAGTTCTCAGCGA

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FIGURE 4410B

GTCCTATGTTGAAATCTGGAATGTCTCCTGAGCAGAGCAGGTTCCAGTCTGACTCTTCTTCATATCCTACAGTGG
ACTCGAATTCTCTCTTGGGGCAGAGTAGATTGGAGACTGCTGAATCAAAAAGAGAAAATGGCCTTACCCCTCAGG
AGGATGCTACTGCATCACCTCCTAGACAGAAAGACAAATTTAGTCCCTTTCCAGTACAGGATAGGCCTGAGTCTT
CACTGGTATTCAAAGACACACTTAGAACCCCGCCAGGGAAAAGTGGTGCTGGGTCATCTCCAGAAACAAAAG
AGCAAAATAGTGCATTGCCTACGTCAAGCCAAGATGAAGAGTTAATGGAGGTGGTAGAGAAGTCTGAAGAACCCG
CAGGCCAAATCCTGTCTCATTGTCTTCAGAACTTAAAGAAATGTCCACAAGTAACTTTGAATCATCTCCTGAAG
TAGAAGAAAGGCCTGCTGTGTCTTTGACTCTTGATCAGAGCCAGTCACAGGCTTCTTTGGAAGCAGTAGAAGTCC
CTTCAATGGCCTCATCTTGGGGTGGGCCACATTTTTCTCCAGAACATAAAGAACTGTCTAACTCCCCACTCAGGG
AGAACAGCTTTGGATCACCTTTAGAATTTAGAACTCAGGCCCACTTGGTACAGAAATGAATACTGGATTTTCTT
CTGAGGTTAAAGAAGATTTGAATGGACCGTTTCTTAATCAGCTGGAAAACAGATCCATCTCTAGACATGAAAGAAC
AATCGACAAGATCCTCTGGACACAGCAGTTCTGAGTTATCCCCAGATGCAGTGGAAAAGGCAGGGATGTCTTCAA
ATCAGAGCATCTCTTACCTGTGCTTGATGCTGTACCCAGAACACCCCTCGAGAGAAAAGAGTAGTTCTGCATCTT
CTCCTGAAATGAAAGATGGTTTACCCAGAACTCCATCAAGGAGAAGCAGGTCTGGGTCTTCTCCAGGACTTAGAG
ATGGGTCTGGGACTCCCTCGAGGCACAGCCTGTCTGGGTCTCTCTGGAATGAAAGATATACCTAGAACGCCAT
CTAGAGGGAGAAGCGAATGTGATTCTTCCCCAGAACCGAAAGCTTTGCCTCAGACTCCTAGGCCGAGGAGTCGTT
CTCCATCATCCCCAGAGCTCAACAACAAGTGTCTTACCCCCAGAGAGAAAAGCGGGTCAGAATCATCAGTTG
ATCAGAAAACGTGTGGCTCGGACTCCCTGGGGCAGAGAAGTCGTTCCGGGATCCTCTCAAGAACTTGATGTGAAAC
CCAGTGCATCCCTCAGGAAAGAAGTGAGTCAGACTCTTCTCCAGATTCTAAAGCCAAGACAAGAACCCCACTTC
GGCAGAGGAGTCGGTCTGGATCATCTCCAGAGGTTGACAGCAAATCTCGACTATCCCTCGGCGCAGTAGGTCTG
GTTCTCTCCCTGAAGTGAAGATAAGCCAAGAGCAGCACCAGGGCACAGAGTGGTTCTGATTCTCTCTGAAC
CTAAAGCTCCAGCCCTCGGGCCCTTCCAGACGAAGCAGATCAGGTTTCATCAAGCAAAGGCAGAGGCCCTTCTC
CTGAAGGAAGCAGCAGTACCGAGTCTCTCTGAACTCCGCCAAATCCAGAACTGCTCGCAGAGGTTCCAGGT
CATCACCAGAGCCCAAGACCAAGTCTCTGTACACCACCTCGACGTCGCAGCTCTCGATCATCTCCGAGCTAACAA
GGAAGGCCAGACTGTCCGTAGAAGCCGCTCTGCCTCATCTCACCAGAACTCGCTCTAGAACTCCCCCAAGGC
ACCGGAGAAGTCCCTCAGTGTCTTCCCCGGAGCCAGCCGAAAATCGAGGTCTTACGCCGACGGCGCTCAGCTT
CATCTCCACGCACTAAGACAACCTCAAGGAGAGGCCGCTCTCCTTCGCCAAAGCCTCGTGGACTCCAGAGGTCCC
GTTCCCGCTCAAGGAGAGAGAAAACAAGAACAACCCGACGTCGAGATAGGTCTGGATCTTCTCAGTCAACCTCTC
GGCGAAGACAGCGGAGCCGGTCAAGGTCTGGGGTACTCGGCGGCGAGGGGAGGCTCTGGTTATCACTCAAGGT
CACCTGCCCGGCAGGAAAGTTCCCGGACCTCTCTCGACGCCGAAGAGGCCGCTCTCGGACACCCCAACCAGTC
GGAAGCGTTCTCGCTCACGCACATCACCAGCCCCGTGGAAACGCTCTAGATCTCGAGCCTCTCCAGCCACTCACC
GGCGATCCAGGTCCAGAACCCCCCTGATAAGCCGACGTAGGTCCAGATCTCGAACTTCACCAGTCAGCCGGAGAC
GGTCAAGGTCCAGGACTTCAGTGAATCGACGAAGATCCCGGTCAAGAGCATCCCCAGTGAGCAGAAGGCGATCCA
GATCCAGAACGCCACCAGTAACCCGCCGTCGTTCAAGGTCTAGAACGCCAACACAGCCGCCGCTCCCGTTCTA
GAACTCCACCAGTGAATCGCAGAAGGTCCAGATCCAGGACTCCACCAGTAACCAGGAGGCGATCTCGAAGCAGAA
CTTCGCCTATCACTCGCAGAAGATCAAGATCCAGAACATCTCCGGTCAACCGAAGGAGATCTCGATCTCGCACAT
CTCCAGTAACTCGAAGAAGGTCCCGCTCTCGAACCTCACCAGTGACACGCCGCCGCTCTAGGTCCCGGACACCTC
CAGCACAGGATCAGCCGAGGTCTCCTGTGCCTTCTGCTTTTTCAGACCAATCCCGTTGTTTGATTGCCAGACCA
CCCCTGTAGCAGGGTCTCAGTCCCTTCTCTTGGGGCAGTGGCAACGACCACGTCCTCTGCTGGTGATCACAATG
GCATGCTCTCTGTCCCTGCCCTGGGGTGCCCACTCTGATGTGGGGGAGCCACCTGCCTCTACTGGGGCCCAGC
AGCCTTCTGCATTAGCCGCCCTGCAGCCAGCAAAGGAGCGGCGAGTTCTCTCTCGTCGTCTGCTCTCTAGCT
CCTCCTCCTCTTCATCATCGTCGTCTGTCCTCTCTCTCTCTGGCTCCAGTTCTAGTGACTCAGAGGGCTCTA
GCCTTCTCTGTGAACCTGAGGTGGCACTGAAGAGGGTCCCCAGCCCCACCCAGCCCCAAGGAGGCTGTTCGAG
AGGGACGTCCTCCGGAGCCAACCCAGCCAAACGGAAGAGGCGCTCTAGCAGTTCCAGTTCCAGTCTCTCTCT
CATCTTCT
CCT
AGCCACCCCTGGCGAGCGGAGGTCCCGCAGCCCCCGGAAGCCAATAGACTCCCTCAGGGACTCTCGGTCCCTCA
GCTACTCGCCTGTGGAGCGTCGCCGTCCCTCGCCCCAGCCCTCACCACGGGACCAGCAGAGCAGCAGTGAAGC
GGGGTTCCCGGAGAGGCCAGCGTGGGGACAGCCGCTCCCCAGCCACAAGCGCAGGAGGGAGACACCTAGCCCTC

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FIGURE 4410C

GGCCCATGAGACACCGCTCCTCCAGGTCTCCATAAATTGTCTTTGGGGGATTCCACCACACCCAATGCTCTGGAG
CCACAAGGAGTGTCCTTTCTTCCCCAGCAGAGCCGTGGGAGGGTCCTTGTCTGCTCTCCTTTGAACCTTGGCAGC
CCTTGGATGGAGGGCTCCCTTTCCCTCCCCTTTTTTTTTCTTGTTCCTGTGAAATGTTAATCTCCGTGAGTTC
TTCCTGGTTCATGTGTTCTGGGGGGTTTGGGGTGGGAGGGAATGCAGATGGGAGTTGGGGGAGGGGAGGATACAG
TTCAGGATACCCAGCCTGGAGTCAGGGCCAGGGAGGCATGGCCCCACTTGTATCCAGAAGTTCCCAGGGGTGAT
TGTGATGGTGGTTGGGACTGGAGGTTGTATAAGGTGTTCTTGAAGGAAGGGGCAGGAGTTGGAATTAGTTGGTC
CCTACTGTCCCCCATGAGGTTGTGAACCCCTCCCCCACTTTTCATGTTTCTTAAAGGCATTTTGGTTTTTTAA
AATCTGTACAGCAAGAGCAACTTTTTCTGTCAAATAAAAAATGAGAAATGCAGG

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FIGURE 4411

ATGCTGCCGGCGGGCTGCTCGCGCCGGTGAGGCCTGCGCGGCAGGAGGGGGTGGGAGGATGCGGGCGGGCCGGTA
GCCAGGCGCGGGGCCCCGAGGCCCGACGCTGGCCGAGGTGCTGAGCCGCCGGTGCGTCCCCCAGGCTGGTGGCCGA
GCTGCAGGGCGCCCTGGACGCCTGCGCACAGCGACAATTGCAATTGGAGCAGAGCCTGCGCGTTTGCCGTGGCT
GCTGCATGCCTGGGAACCAACTGGGACCCGGGCTTTGAAGCCACCTCCAGGGCCAGAACTAATGGAGAGGACCC
CCTTCCAGCATGCACACCCAGTCCACAAGACCTCAAAGAGTTGGAGTTTCTGACCCAGGCACTGGAGAAGGCTGT
ACGAGTTCGAAGAGGCATCACTAAGGCCGAGAGAGAGACAAGGCCCCCAGCCTGAAATCTAGGTCCATTGTAC
CTCTTCTGGCACGACAGCCTCCGCCCCACCGCATTCGCCAGGCCAAGCTGGTGGCCATGCTTCAGACACGAGACC
CACCAAGGGCCTCCGCCAGACCACGGTGCTGCCAAGGGCCACCTGAGCGCCGGCTGCTGTCACTGGGGGATGG
GACCCGTGTTGGGATGGGAGCCCGAACCCCCAGGCCTGGGGCGGGCCTCAGGGACCAGCAAATGGCCCCATCCGC
TGCTCCTCAGGCCCCAGAAGCCTTCACACTCAAGGAGAAGGGGCACCTGCTGCGGCTGCCTGCGGCATTTCAGGAA
AGCAGCTTCCCAGAACTCGAGCCTGTGGGCCCAGCTCAGTTCCACACAGACCAGTGATTCCACGGATGCCGCCGC
TGCCAAAACCCAGTTCCTCCAGAACATGCAGACAGCTTCAGGCGGGCCCCAGCCCAGGCTCAGTGCTGTGGAGGT
GGAGGCGGAGGCGGGGCGCCTGCGGAAGGCCTGCTCGCTGCTGAGACTGCGCATGAGGGAGGAGCTCTCAGCAGC
CCCCATGGACTGGATGCAGGAGTACCGCTGCCTGCTCACGCTGGAGGGGCTGCAGGCCATGGTGGGCCAGTGTCT
GCACAGGCTGCAGGAGCTGCGTGACGCGGTGGCGGAACAGCCACCAAGACCATGTCCTGTGGGGAGGCCCCCGG
AGCCTCGCCGTCTGTGGGGGTAGAGCGGAGCCTGCATGGAGCCCCCAGCTGCTTGTCTACTCCAGCACCCAGGA
GCTGCAGACCCCTGGCGGCCCTCAAGCTGCGAGTGGCTGTGCTGGACCAGCAGATCCACTTGGAAAAGGTCCTGAT
GGCTGAACCTCCTCCCCCTGGTAAGCGCTGCACAGCCGCAGGGGCCGCCCTGGCTGGCCCTGTGCCGGGCTGTGCA
CAGCCTGCTCTGCGAGGGAGGAGCACGTGTCTTACCATCCTGCGGGATGAACCTGCAGTCTGAGCCCTTCCCAT
GCTGCCCTCGGCCCTGTTTCAGATGGGGATTGGGGGTGTCTTCCCTGGCACTGTGCTCGGGGACCCAGAGATGCCTG
TGCTTCCCTGGGAAACCTGGTGAACCTGGACCAGGTGGCCTCACTGGCTCTTCTCAGGACAACCTAAGCCTGCTGGT
CAGGGCTGGCTTTTCAGCCTTCCTAAGGCTCCTGGACTCCAGAGGCCAGCGGGGAGCCTTTCCTGGCTCCCTCTGT
TTTCTCTCACTGTAGACCAAAGAGCCGCTTGTGTGATATTAAAGCCACTTTAGAAAGC

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FIGURE 4412

MGARTPRPGAGLRDQQMAPSAAPQAPEAFTLKEKGHLLRLPAAFRKAASQNSSLWAQLSSTQTSDSTDAAAKTQ
FLQNMQTASGGPQPRLSAVEVEAEAGRLRKACSLRLRMREELSAAPMDWMQEYRCLLTLEGLQAMVGQCLHRLQ
ELRAAVAEQPPRPPCPVGRPPGASPSGGRAPAWSPQLLVYSSTQELQTLAALKLRVAVLDQQIHLEKVLMAELL
PLVSAAQPQGPPWLALCRAVHSLCEGGARVLTILRDEPAV

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FIGURE 4413A

GCAGCGCGGCCAGGCGGGGTGCGAGTGGCGCAGTTGGAGCCCGTTGCGGCCCTGAGGAAGCGAGGAGGCGTCG
GCGTCGGCTGAGGCGGGCGGACCGGCGAGGCGAGGCGGCGGCCCCAGGCCCGAGGGACCTCGGGAGCTCGAGCAG
CGGCGGGCGCAAGACCTCTCCCCCTCGGAGGCGGCGGGCGGAGGCGGCGGGAGCGGTGGTGGCCCCCGGGCAC
GGGGCCATGTACAACGGGATCGGGCTGCCGACGCCCCGGGGCAGCGGCACCAACGGCTACGTCCAGCGCAACCTG
TCCCTGGTGCGGGGCCGCCGGGTGAGCGGCTGACTACAAGGGAGAGGAGGAAGTGGCGCGCTGGAGGCTGCC
CTGGTGAAGCGGCCTAATCCTGACATCCTGGACCACGAGCGCAAGCGGCGCGTTCGAGCTGCGATGCCTCGAGCTG
GAGGAGATGATGGAAGAGCAGGGGTACGAGGAACAGCAAATTCAGGAAAAAGTGGCGACCTTTCGACTCATGTTG
CTGGAGAAGGATGTGAACCTTGGGGCAAGGAGGAGACCCAGGGCAGAGGCCAGCGGTACGGGAGACTACCCAG
TTGGCAGAATTAAATGAGAAGAAGATGAAAGACTCCGTGCTGCCTTTGGCATCAGTGATTCTTACGTAGATGGC
AGCTCTTTTGATCCTCAGCGTCGTGCCCGAGAAGCTAAACAACCCAGCTCCTGAGCCTCCCAAACCTTACAGCCTT
GTTCCGGGAGTCTAGCAGTTCTCGCTCACCACCCCAAAGCAGAAGAAGAAGAAAAAGATAGAGGACGC
AGGTGAGAGAGCAGCTCTCCTCGACGGGAGAGAAAGAAAAGCTCAAAGAAGAAGAAGCACAGGTGAGAAATCTGAG
TCCAAGAAACGTAAGCATAGGTCTCCACTCCAAAGAGCAAACGTAAATCTAAGGACAAAAAGCGAAAGCGGTCT
CGAAGTACAACACAGCCCCCAAGAGCCGCCGGGCCACCCTTCAACTTCTGCTGACTCTGCTTCTCTCCCTCCGAT
ACTTCCCGCAGTCGGTCTCGAAGTGTGCGAGTAAACTCATACAAGTGCCTTGGCTGGGCGAAGTCTTCCCTT
GCTTCAGGGCGACGCGGGGAGGAGATGCGCCTTTTCAGTGAACCAAGTACTACCAGCACACAACGGCCTTAGTGC
CCGGAGACTGCTACGAAACAGCCTAGCAGCCCTTATGAAGACAAAAGATAAAGACAAGAAGGAGAAATCTGCAACT
CGACCTAGCCCCCTCTCCGAAAGGAGCAGCACAGGCCCAGAACCACCTGCTCCACTCCGCTCCTTGTCTGAGCGA
CATGGCGGCTCCCCACAACCCCTTGCAACCACCCCTTAAAGCCAGGAGCCAGTGAACCCCCCATCTGAGGCCTCT
CCAACCTCGGGACCGTTTACCACCTAAGTCTCCCGAGAAACTTCCCCAGTCTTCTTCTCAGAGAGCAGCCACCA
TCCCCCTCAACCTACCAAAGTTTCTCGGCATGCCAGCTCTTCCCCAGAAAGTCTTAAACCTGCTCCAGCTCCAGGG
TCCACCGAGAGATTTCTTCTTCTCCACATCTAAGAATCGCTCACATGGCCGAGCAAAAACGGGATAAATCACAT
TCTCATACCCCTCCCGTAGGATGGGGAGGTCCCGTAGCCCTGCCACCGCTAAGAGAGGGCGATCTCGGTCTCGA
ACCCCTACCAAGAGAGGTCAATCTCGATCCCGATCTCCCCAGTGGCGTAGGTCCAGGTCTGCACAGAGGTGGGGA
AGATCTAGAAGCCCCCAGCGACGTGGCCGCTCTAGGTCTCCTCAGCGACCAGGCTGGTCTAGGAGCAGAAATACC
CAGAGAAGAGGCAGGTCTAGGTGAGCAAGGCGAGGGAGGTCCACTCTAGATCCCCAGCCACTAGGGGTAGATCT
CGTTCTAGAACACCAGCCCGCGGGGAGGTCCCGCTCTAGAACACCTGCCAGGCGGAGATCACGATCCAGAAT
CCCACAGGCGTAGGTCTCGGTCTAGAACACCAGCCCGAGGGGAGGTCTCGGTCTAGAACACCTGCTAGGCGC
AGATCTAGGACCCGATCACCAGTACGACGAGGTCTCGTAGTAGATCACCAGCCAGGAGAGTGGCAGGTACGCG
TCTAGAACCCAGCTAGACGTGGCCGCTCAGCTCCAGAACCCAGCCAGACGTGGCCGCTCAGCTCTAGAACC
CCAGCTAGACGAGTGGTCTCAGCTCCAGAACACCAGCCAGGAGAGGGAGGTCTCGGTCTAGGACACCAAGA
CGAGGAAGATCCCGCAGTAGAAGCTTAGTTAGACGTGGAAGATCTCACTCTAGAACACCTCAAAGAAGAGGCAGA
TCTGGCTCATCTTCAGAGCGGAAAAACAAATCCAGAACATCTCAAAGAAGAAGCAGGTCCAATTCAAGCCCAGAA
ATGAAGAAATCTCGCATTTCTTCAAGGCGGAGCAGGTCTCTCTTCCACCAGGTCCAAAGCAAAATCTCGCTTG
TCTTTGAGGCGCAGCCTTTAGGGTCTTCCCCATGCCCTAAACAAAAGTACAGACACCACCCAGGCGCAGTCGC
TCTGGATCCTCCCAACCTAAAGCTAAATCTAGAAGCCACCCAGACGAGTCGCTCCAGTTCTTCTCCGCCACCT
AAACAGAAATCTAAGACACCATCAAGACAAAGTCATTCCAGTTTCATCTCCTCATCCTAAAGTGAATCTGGAACA
CCACCGAGGCAAGGGTCCATAACAAGTCCCCAGGCCAATGAGCAATCTGTAACGCCACAGAGACGGAGCTGTTTT
GAATCATCACCTGACCTGAGTTGAAATCTAGGACCCCTTCTAGACATAGCTGCTCAGGGTCTCTCTCTCTAGA
GTGAAATCTAGCACACCTCCAGACAGAGCCCATCTAGGTATCATCTCCACAACCCAAAGTGAAGGCAATAATA
TCACCAAGACAAAGAAGCCATTCTGGCTCCTTCTTCCAAGTCTTAGTAGGGTGACGTCGAGAACAACTCCACGG
CGAAGCAGATCAGTATCTCCCTGCTCCAATGTGGAATCCAGATTGTTGCCAAGATACAGTCATTCTGGGTCTCC
TCACCAGATACCAAAGTGAAACCTGAAACACCGCCAAGACAAAGTCACCTCAGGGTCTATTTACCATACCCCAA
GTAAAGGCCCAAAC TCCACCGGGGCCAAGTCTTTCTGGATCAAAGTCACCATGTCCCCAAGAGAAGTCTAAAGAC
TCACTAGTTCAAAGTTGCCCTGGATCCCTCTCTCTCTGTGCAAGGAGTAAATCTAGCACACCACAGGCGAGAGC
TATTTTGGTGTCTCATCTCTGCAACTGAAAGGACAATCTCAAACCTTACCAGACCACAGATCTGATACTTCAAGT
CCAGAAGTGAGACAGAGTCATTGAGAATCACCATCTCTGAGAGCAAATCTCAAACATCACCTAAGGGAGGTCCG
TCCAGGTCTTTCATCTCCAGTCACTGAGCTGGCATCCAGATCTCCAATAAGACAAGATAGAGGTGAGTTCTCAGCG

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FIGURE 4413B

AGTCCTATGTTGAAATCTGGAATGTCTCCTGAGCAGAGCAGGTTCCAGTCTGACTCTTCTTCATATCCTACAGTG
GACTCGAATTCTCTCTTGGGGCAGAGTAGATTGGAGACTGCTGAATCAAAAGAGAAAATGGCCTTACCCCTCAG
GAGGATGCTACTGCATCACCTCCTAGACAGAAAGACAAATTTAGTCCCTTTCCAGTACAGGATAGGCCTGAGTCT
TCACTGGTATTCAAAGACACACTTAGAACCCCGCCAAGGGAAAGAGTGGTGCTGGGTCTATCTCCAGAAACAAAA
GAGCAAAATAGTGCAATTGCCTACGTCAAGCCAAGATGAAGAGTTAATGGAGGTGGTAGAGAAGTCTGAAGAACCC
GCAGGCCAAATCCTGTCTCATTGTCTTCAGAACTTAAAGAAATGTCCACAAGTAACTTTGAATCATCTCCTGAA
GTAGAAGAAAGGCCTGCTGTGTCTTTGACTCTTGATCAGAGCCAGTACAGGCTTCTTTGGAAGCAGTAGAAGTC
CCTTCAATGGCCTCATCTTGGGGTGGGCCACATTTTCTCCAGAACATAAAGAACTGTCTAACTCCCCACTCAGG
GAGAACAGCTTTGGATCACCTTTAGAAATTTAGAACTCAGGCCCACTTGGTACAGAAATGAATACTGGATTTTCT
TCTGAGGTAAAGAAGATTTGAATGGACCGTTTCTTAATCAGCTGGAAACAGATCCATCTCTAGACATGAAAGAA
CAATCGACAAGATCCTCTGGACACAGCAGTTCTGAGTTATCCCCAGATGCAGTGGAAAAGGCAGGGATGTCTTCA
AATCAGAGCATCTCTTACCTGTGCTTGATGCTGTACCCAGAACACCTCGAGAGAAAGAAGTAGTTCTGCATCT
TCTCCTGAAATGAAAGATGGTTTACCCAGAACTCCATCAAGGAGAAGCAGGTCTGGGTCTTCTCCAGGACTTAGA
GATGGGTCTGGGACTCCCTCGAGGCACAGCCTGTCTGGGTCTCTCCTGGAATGAAAGATATACCTAGAACGCCA
TCTAGAGGGAGAAGCGAATGTGATTCTTCCCCAGAACCGAAAGCTTTGCCTCAGACTCCTAGGCCGAGGAGTCGT
TCTCCATCATCCCCAGAGCTCAACAACAAGTGTCTTACCCCCAGAGAGAAAGCAGGTCAGAAATCATCAGTT
GATCAGAAAATGTGGCTCGGACTCCCTGGGGCAGAGAAGTCGTTGCGGATCCTCTCAAGAACTTGATGTGAAA
CCCAGTGCATCCCCCAGGAAAGAAGTGAGTCAGACTCTTCTCCAGATTCTAAAGCCAAGACAAGAACCCCACTT
CGGCAGAGGAGTCGGTCTGGATCATCTCCAGAGTTGACAGCAAACTCTCGACTATCCCCCTCGGCGCAGTAGGTCT
GGTTCTCTCCCCGTAAGTGAAAGATAAGCCAAGAGCAGCAGCCAGGGCACAGAGTGGTTCTGATTCTCTCCTGAA
CCTAAAGCTCCAGCCCCCTCGGGCCCTTCCAGAGCAAGCAGATCAGGTTTCATCAAGCAAGGCAGAGGCCCTTCT
CTGAAGGAAGCAGCAGTACCGAGTCTCTCCTGAACATCCGCCCAAATCCAGAACTGCTCGCAGAGGTTCAGG
TCATACCCAGAGCCCCAAGACCAAGTCTCGTACACCACCTCGACGTCGCAGCTCTCGATCATCTCCGGAGCTAAACA
AGGAAGGCCAGACTGTCCCGTAGAAGCCGCTCTGCCTCATCCTACCAGAACTCGCTCTAGAATCCCCCAAGG
CACCGGAGAAGTCCCTCAGTGTCTTCCCCGGAGCCAGCCGAAAAATCGAGGTCTTCACGCCGACGGCGCTCAGCT
TCATCTCCACGCACTAAGACAACCTCAAGGAGAGGCCGCTCTCCTTCGCCAAAGCCTCGTGGACTCCAGAGGTCC
CGTTCCCGCTCAAGGAGAGAGAAAAACAAGAACACCCGACGTCGAGATAGGTCTGGATCTTCTCAGTCAACCTCT
CGGCGAAGACAGCGGAGCCGGTCAAGGTTCGCGGGTTACTCGGCGGCGAGGGGAGGCTCTGGTTATCACTCAAGG
TCACCTGCCCCGGCAGGAAAGTTCCCGGACCTCCTCTCGACGCCGAAGAGGCGCTCTCGGACACCCCCAACCCAGT
CGGAAGCGTTCTCGCTCACGCACATACCAGCCCCGTGGAACGCTCTAGATCTCGAGCCTCTCCAGCCACTCAC
CGGCGATCCAGGTCCAGAACCCCCCTGATAAGCCGACGTAGGTCCAGATCTCGAACTTACCAGTCAGCCGGAGA
CGGTCAAGGTCCAGGACTTCAGTGAATCGACGAAGATCCCGGTCAAGAGCATCCCCAGTGAGCAGAAGGCGATCC
AGATCCAGAACGCCACCAGTAACCCGCCGTGCTTCAAGGTCTAGAAGCCAAACAACACGCCGCCGCTCCCGTTCT
AGAACTCCACCAGTGAATCGCAGAAGGTCCAGATCCAGGACTCCACCAGTAACCAGGAGGCGATCTCGAAGCAGA
ACTTCGCCTATCACTCGCAGAAGATCAAGATCCAGAACATCTCCGGTCACCCGAAGGAGATCTCGATCTCGCACA
TCTCCAGTAACTCGAAGAAGGTCCCGCTCTCGAACCTCACCAGTGACACGCCGCCGCTCTAGGTCCCGGACACCT
CCAGCACAGGATCAGCCGAGGTCTCCTGTGCCTTCTGCTTTTTAGACCAATCCCGTTGTTTGATTGCCAGACC
ACCCCTGTAGCAGGGTCTCAGTCCCTTTCTCTTGGGGCAGTGGCAACGACCACGTCTCTGCTGGTGATCACAAT
GGCATGCTCTCTGTCCCTGCCCCGTTGGGGTGGCCCACTCTGATGTGGGGGAGCCACCTGCCTCTACTGGGGCCCAG
CAGCCTTCTGCATTAGCCGCCCTGCAGCCAGCAAAGGAGCGGCGGAGTTCTCCTCGTCGTCGTCGTCCTCTAGC
TCCTCCTCTTCTCATCATCGTCGTCGTCGTCCTCTCTCTCTCTGGCTCCAGTTCTAGTGAATCAGAGGGCTCT
AGCCTTCTGTGCAACCTGAGGTGGCACTGAAGAGGGTCCCCAGCCCCACCCAGCCCCAAAGGAGGCTGTTTGA
GAGGGACGTCCTCCGGAGCCAACCCAGCCAACCGGAAGAGGCGCTCTAGCAGTTCCAGTTCCAGCTCCTCCTCT
TCATCTTCTCCTCCTCCTCCTCCTCCTCTTCTTCTCCTCCTCCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCT
TCTCCTCGTCGTCCTTCTCCTCCTTCTCCTGCTAAGCCTGGCCCTCAGGCCTTGCCCAAACCTGCAAGCCCCAAG
AAGCCACCCCTGGCGAGCGGAGGTCCCGCAGCCCCCGGAAGCCAATAGACTCCCTCAGGGACTCTCGGTCCCTC
AGCTACTCGCTGTGGAGCGTCGCCGTCCCTCGCCCCAGCCCTCACCACGGGACCAGCAGAGCAGCAGCAGTGAG
CGGGGTCCCGGAGAGGCCAGCGTGGGGACAGCCGCTCCCCAGCCACAAGCGCAGGAGGGAGACACCTAGCCCT

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FIGURE 4413C

CGGCCCATGAGACACCGCTCCTCCAGGTCTCCATAAATTGTCTTTGGGGGATTCCACCACACCCAATGCTCTGGA
GCCACAAGGAGTGTCCCTTCTTCCCAGCAGAGCCGTGGGAGGGTCCTTGTCTGCTCTCCTTTGAACCTTGGCAG
CCCTTGGATGGAGGGCTCCCTTTCCCTCCCTTTTTTTTTTCTTTGTTCCCTGTGAAATGTTAATCTCCGTGAGTT
CTTCCTGGTTTCATGTGTTCTGGGGGGTTTGGGGTGGGAGGGAATGCAGATGGGAGTTGGGGGAGGGGAGGATACA
GTTTCAGGATACCCAGCCTGGAGTCAGGGCCAGGGAGGCATGGCCCCACTTGTATCCAGAAGTTCCCAGGGGTGA
TTGTGATGGTGGTTGGGACTGGAGGTTGTATAAGGTGTTCTTGGAAGGAAGGGGCAGGAGTTGGAATTAGTTGGT
CCCTACTGTCCCCCATGAGGTTGTGAACCCCTCCCCCAACTTTTCATGTTTCTTAAAGGCATTTTGGTTTTTTA
AAATCTGTACAGCAAGAGCAACTTTTTCTGTCAAATAAAAATGAGAAATGCAGG

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FIGURE 4414

CGACATGGCGCGCGAGCTGCGGGCGCTGCTGCTGTGGGGCCGCCCTGCGGCCCTTTGCTGCGGGCGCCGGCGCT
GGCGGCCGTGCCGGGAGGAAAACCAATTCTGTGTCTCGGAGGACCACAGCCCAGTTGGGCCCCAGGCGAAACCC
AGCCTGGAGCTTGAGGCAGGACGACTGTTTCAGCACGCAGACCGCCGAGGACAAGGAGGAACCCCTGCACTCGAT
TATCAGCAGCACAGAGAGCGTGCAGGGTTCCACTTCCAAACATGAGTTCCAGGCCGAGACAAAGAAGCTTTTGA
CATTGTTGCCCGGTCCCTGTACTCAGAAAAAGAGGTGTTTATACGGGAGCTGATCTCCAATGCCAGCGATGCCTT
GGAAAACTGCGTCACAACTGGTGTCTGACGGCCAAGCACTGCCAGAAATGGAGATTCACTTGACAGCAATGC
CGAGAAAGGCACCATCACCATCCAGGATACTGGTATCGGGATGACACAGGAAGAGCTGGTGTCCAACCTGGGGAC
GATTGCCAGATCGGGGTCAAAGGCCCTTCCTGGATGCTCTGCAGAACAGGCTGAGGCCAGCAGCAAGATCATCGG
CCAGTTTGGAGTGGGTTTCTACTCAGCTTTCATGGTGGCTGACAGAGTGGAGGTCTATTCCCGCTCGGCAGCCCC
GGGGAGCCTGGGTTACCAGTGGCTTTCAGATGGTCTGGAGTGTTTGAATCGCCGAAGCTTCGGGAGTTAGAAC
CGGGACAAAAATCATCATCCACCTGAAATCCGACTGCAAGGAGTTTTCCAGCGAGGCCCGGGTGCGAGATGTGGT
AACGAAGTACAGCAACTTCGTAGCTTCCCCTTGTTACTTGAATGGAAGGCGGATGAACACCTTGAGGCCATCTG
GATGATGGACCCCAAGGATGTCTGGTGAAGTGGCAACATGAGGAGTTCTACCGCTACGTGCGCGAGGCTCAGGACAA
GCCCCGCTACACCTGCACTATAAGACGGACGCACCGCTCAACATCCGCAGCATCTTCTACGTGCCCGACATGAA
ACCGTCCATGTTTGTATGTGAGCCGGGAGCTGGGCTCCAGCGTTGCACTGTACAGCCGCAAAGTCCTCATCCAGAC
CAAGGCCACGGACATCTGCCCCAAGTGGCTGCGCTTCATCCGAGGTGTGGTGGACAGTGAGGACATTCCCCTGAA
CCTCAGCCGGGAGCTGCTGCAGGAGAGCGCACTCATCAGGAAACTCCGGGACGTTTTACAGCAGAGGCTGATCAA
ATTCTTCATTGACCAGAGTAAAAAAGATGCTGAGAAGTATGCAAAGTTTTTTGAAGATTACGGCCTGTTCATGCG
GGAGGGCATTGTGACCGCCACCGAGCAGGAGGTCAAGGAGGACATAGCAAAGCTGCTGCGCTACGAGTCCCTCGGC
GCTGCCCTCCGGGCAGCTAACCAGCCTCTCAGAATACGCCAGCCGCATGCGGGCCGGCACCCGCAACATCTACTA
CCTGTGCGCCCCCAACCGTCACCTGGCAGAGCACTCACCTACTATGAGGCCATGAAGAAGAAAGACACAGAGGT
TCTCTTCTGCTTTGAGCAGTTTGATGAGCTCACCTGCTGCACCTTCGTGAGTTTGACAAGAAGAAGCTGATCTC
TGTGGAGACGGACATAGTCGTGGATCACTACAAGGAGGAGAAGTTTGAGGACAGGTCCCCAGCCGCCGAGTGCCT
ATCAGAGAAGGAGACGGAGGAGCTCATGGCCTGGATGAGAAATGTGCTGGGGTTCGCGTGTACCAACGTGAAGGT
GACCTCCGACTGGACACCCACCCTGCCATGGTCAACGTGCTGGAGATGGGGGCTGCCCGCCACTTCCTGCGCAT
GCAGCAGCTGGCCAAGACCCAGGAGGAGCGCGCACAGCTCCTGCAGCCCACGCTGGAGATCAACCCCAGGCACGC
GCTCATCAAGAAGCTGAATCAGCTGCGCGCAAGCGAGCCTGGCCTGGCTCAGCTGCTGGTGGATCAGATATACGA
GAACGCCATGATTGCTGCTGGACTTGTTGACGACCCTAGGGCCATGGTGGGCGCTTGAATGAGCTGCTTGTCAA
GGCCCTGGAGCGACACTGACAGCCAGGGGGCCAGAAGGACTGACACCACAGATGACAGCCCCACCTCCTTGAGCT
TTATTACCTAAATTTAAAGGTATTTCTTAACCCGAAAAAAAAAAAAA

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FIGURE 4415

MARELRALLLWGRRLRPLLRAPALAAVPGGKPILCPRRTTAQLGPRRNPAWSLQAGRLFSTQTAEDKEEPLHSII
SSTESVQGSTSKHEFQAETKKLLDIVARSLYSEKEVFIRELISNASDALEKLRHKLVS DGQALPEMEIHLQTNAE
KGTITIQDTGIGMTQEELVSNLGTIARSGSKAFLDALQNQAEASSKII GQFGVGFYSAFMVADRVEVYSRSAAPG
SLGYQWLSDGSGVFEIAEASGVRTGTKII IHLKSDCKEFSSEARVRDVVTKYSNFVSFPLYLNGRRMNTLQAIWM
MDPKDVGEWQHEEFYRYVAQAHDKPRYTLHYKTDAPLNIRSIFYVPDMKPSMFDVSRELGSVALYSRKVLIQTK
ATDILPKWLRFIRGVVDSEDIPLNLSRELLQESALIRKLRDVLQQRLIKFFIDQSKKDAEKYAKFFEDYGLFMRE
GIVTATEQEVKEDIAKLLRYESSALPSGQLTSLSEYASRM RAGTRNIYYLCAPNRHLAEHSPYYEAMKKKDTEVL
FCFEQFDELTLHLREFDKKKLISVETDIVVDHYKEEFEDRSPAAECLSEKETEELMAWMRNVLGSRVTNVKVT
LRLDTHPAMVTVLEMGAARHFLRMQQLAKTQEERAQLLOPTLEINPRHALIKKLNQLRASEPGLAQLLVDQIYEN
AMIAAGLVDDPRAMVGRLNELLVKALERH

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FIGURE 4416

CGGAATGGAGGAGGTGCCTCACGACTGTCCAGGGGCCGACAGCGCCCAGGCGGGCAGAGGGGCTTCATGTCAGGG
ATGCCCCAACCAGCGGCTGTGCGCTTCTGGAGCGGGGGCCACTCCGGACACGGCTATAGAGGAAATCAAAGAGAA
AATGAAGACTGTAAACACAAAATCTTGGTATTGTCTGGGAAAGGCGGTGTTGGGAAAAGCACATTTCAGCGCCCA
CCTTGCCCATGGCCTAGCAGAGGATGAAAACACACAGATTGCTCTTCTAGACATCGATATATGTGGGCCATCGAT
TCCCAAGATAATGGGATTGGAAGGAGAGCAGGTTACCAGAGTGGCTCAGGCTGGTCTCCAGTGTACGTGGAAGA
CAACCTGGGGGTGATGTCAGTGGGCTTCCTGCTCAGCAGTCCTGATGATGCTGTTATCTGGAGGGGACCCAAGAA
AAACGGCATGATCAAGCAGTTCCTCCGAGATGTGGACTGGGGAGAGGTGCGACTACCTCATTGTGGACACCCACC
TGGGACGTCGGATGAACACCTCTCGGTCGTCCGGTACCTGGCCACAGCACACATCGATGGAGCAGTGTATCATC
CACTCCCCAGGAGCTGTCACTCCAGGATGTCCGGAAAGAAATCAACTTCTGCCGCAAGGTGAAGCTGCCCATCAT
CGGGGTGGTGGAGAACATGAGTCCGTTTCATCTGTCTAAGTGCAAGAAAGAATCTCAGATATTCCCTCCACAAC
CGGGGGCGCGGAGCTCATGTGCCAGGACTTGGAGGTCCCTCTCCTCGGCAGAGTGCCCTGGATCCGCTCATAGG
TAAGAATTGTGACAAAGGCCAGTCTTTTTTCATTGACGCCCCAGATTCCCCAGCCACGTTAGCCTACAGAAGTAT
AATTCAGAGAATCCAAGAGTTTTGTAACTCCATCAGTCAAAAGAAGAGAACCTCATCAGTTCCTGAACGAGAG
AATGTTCAGGACCAAGCAGTTACCGAGCGAGGCACTCACTGGGCAGCACATCCAGCCAGACCCGACCAGCTCCGG
GATGGGGTGGGTACAGCAAAAGGACCAGATGCTGGTGTGGTCCGAAGCCACTTCTCAGAGACACTTTAATCAT
TGAGTATTTGTACACTTTTCTTTAGAACATATATAAAGGGCATTCTCTACAAATGTGCCGTTTTAAGAATAAAAC
CCCCTCAAATCTC

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FIGURE 4417

MEEVPHDCPGADSAQAGRGASCQGCPNQRLCASGAGATPDTAIEEIKEKMKTVKHKILVLSGKGGVGKSTFSAHL
AHGLAEDENTQIALLDIDICGPSIPKIMGLEGEQVHQSGSGWSPVYVEDNLGVMSVGFLSSPDDAVIWRGPKN
GMIKQFLRDVDWGEVDYLIVDTPPGTSDEHLSVVRYLATAHIDGAVIITTPQELSLQDVRKEINFCRKVKLP IIG
VVENMSPFICPKCKKESQIFPPTTGGAELMCQDLEVPLLRVPLDPLIGKNCDKGQSFIDAPDSPATLAYRSII
QRIQEFCNLHQSKEENLISS

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FIGURE 4418

CGGTCCTTCTCAACAGGCCTGTGCCCCGCGGGGTCCGCCTCCTCTGGGACGCCTTCCTCCCGGCACAGAAGGCCT
CCCCCTCTCACCAGGGCCCTCGCCCGCTGGTCCGCCAGGCCCGCCCTTTTTTGCGGCCCCCATTTGTGCTGCTGGA
CCCGACGAGCAGTGTTGACAGTGAACCCACGTAGACGCGGCCCGGTACCGGGGGTTCAGGCAGTAGAGCAGGT
AGACGCCGAAAAAGCGCCCTGGCCTCGCCGCGACCCCGCGGGACCCATCGGGCCTTGGGGTTCGGGAACACAG
CAGGGGGTTGATTGCCGTGACCTAGGGTCCAGGGGAGGGCTGGATCGCTAGGGCTGCAGGGTGCTTGCTTCGGAA
CAAGCTCTCGGGGACTATCCGGAGGCAGCCTGCAGGAAGCCGTAGCGCCGGTACGTGCCCCCTCTCCTGTCTGGAG
GCGGGTGTAGAAGTCCGACCGCGGAAGCCAGACTGCTGTCCAGTCGGCGAGCGCGTACCATTACGCATCGGCTCC
GCCCCAGTCCCACCTTCCTCAGGCTCTGATTGGCTGACACATGGCAAGCGCGAAAAGCCTGGACCGCTGGAAAGC
CCGGCTGCTTGAGGGCGGAAGTACTGCGTTGACGTACGCCTTAGTAAGGGCGGAAGTGAGTTTTCCAGCGGAAGT
GGCTCCTGTAAGGCAGCAAGGTAGCGTGGCCGCGCCGAGCTGGGGTTGTGTCCCTGCTGGGCTGCCGTTCCAG
CTGGACTGCCGCCATCGAACTCAGCGCCGAATACCTCCGCGAGAAGCTGCAGCGGGACCTGGAGGCGGAGCATGT
GGAGGTGGAGGACACGACCCTCAACCGTTGCTCCTGTAGCTTCCGAGTCCTGGTGGTGTGCGCCAAGTTCGAGGG
GAAACCGCTGCTTCAGAGACACAGGCTGGTGAACGCGTGCCTAGCAGAAGAGCTCCCGCACATCCATGCCTTTGA
ACAGAAAACCCTGACCCCAGACAGTGGGCACGTGAGCGACAGAAAATGAGGGACTGGGATCTGCACAGCCATTAA
ATTATAAATCTGGACCAGCTTCTGTGTGATGTGTGTGTGGGAGGGGTGCTGAGGCCGAGTCTAGGACCTGGCCT
CTCCCTGCCCTGCCTCCGTCCATTGTTTTTA

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FIGURE 4419

MELSAEYLREKLQRDLEAEHVEVEDTTLNRCSCSFRVLVVS AKFEGKPLLQRHRLVNACLA EELPHIHAF EQKTL
TPDQWARERQK

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FIGURE 4420

GGTAACTTCTTGATGTTGCCGTGGCATTGTGAACTGTTCATGGTGCTGGTAGGAGTGTAGCAGGGAGGATGATGG
GAGGTCAGTCTTGTCTCTATTTTGGTTTTGGTGGGTTTTGGCCAGCTCCTTCACTGCAACCTGTTTTATCAGCAA
GGTCTTTATGACTGGTATTTTGTGCTGACCTTCTATGTCATCCTGTGACTTAGAATGCCTTAACCATCAGGGAAT
GCAGCCCAGTAGTTTCAGCCTCATTTTTCCTGGCTCCTATTTAAGATGGAGTTGCTCTGGTTTCACACACCTCTGA
CATGATCATTGCCCACGTGCGGCTTCCACCTCCCGGGTTCAAGAGATCCTCCTGCCTCACCTCCCAAGGTGCTGG
GACTACAGGTGTGTGCCACCACGCTCAGCTAATTTTGTATTTTTTGTAGAGATGGTGTTCATGTTGCCCA
GGCTGGTCTCAAACCTCTGGGCTCAAGCAATCCTTCTGTCTCAGCCTCCCAAAGTACTGGGATTACAGGCATGTC
CCACCATGCCCAGACTAATATTTACTTTTAATCAGACTAAGATAGGGTTACTACTTGAGTTGCTATGGCTCCAGC
TGAAAGAAAGCCCGTGTCAGTCATATCACGCGTAAACATTTGCTTTATGCTAAAAATATGGTGGACCTGGCATTAC
AGCTATTACAAATCTCCTAAGATGTCTCGGGTAGTGATTAGTTACTTTTCATACTGCTATGAAGAAATACTGGA
AACTGGGTAAATTTATAAAGAAAAAGAGTTTAATGTACTCACAGTTCCACAAGGCTGGAGAGGCCTCAGACAT
GGTGGAAGGCAAGGAGCAAAAAGGTATGTCTTCCATGGCAGCAGGCAAGAGAGCACGTGCAGGGAACTGCCCTT
TATAAAACCATCAGATTTAGTGAGATGTATTCATATCACGAGAACAGTATGGGAAAAACCTGCCCCCATGATTC
GATTACCTCCTACCGGGTCCCTCCACGACACATGGGGATTATGGGAACCTACAATTCAAGATGAAATTTGGGTGG
GGACGCAGCCAAACCATATCGGGTAGCAACAACCTAGGGTCAGTTTTGCAGGTGGTAAAGCCATTTACCAAGATA
GTTGTAGGTAAAGAAGGGCAGATTTATTAGAGAAATTGTGAAAATATGTTGCAGTGGGCAGCTCAGCAGAGAAGG
GGCTACCTGCAAAGAGGCAAGGGCTGGAGGAAAGTTTTATAGGGTCCTGCTGAAGGGTGCTACGTGTGGAATGAG
GTCATTGTGCCCCGAGGTTGTTTGTGATTAGCTGTTTCTAACAATTGTTCAACAATAATTGTTTCATTATTGTTT
TCAACTTGGGGCTCTCCCCAACCTGGGGACCCTTCCTTATTGTTGCTTACTTATCAGGTCTCCACATAAAGGTGT
GGAAACTTCATTTCATTTCATATCTTCAACACAAATTGTAGGTAGCCTGTTTTTTAAACATTTATTCAACAAATAT
TTAGTCCAAGCCACTATTACTTATTACCTTCTCTACTATTGTATGGACTTTTAACTATCTCTGACACTATTCACT
ATTCTTTCCACATTCTCTATTATTTATACCTATGGTAAATTTGCCAGTTTGACCATACAACTAATACTCACAGGG
AATATATAGAGTCTAGAAGAAATATACAGGTCTTAAAGGCTGCCCTGCCAACAAAACCATAACGCAGGAACAA
ACATCACAACTATGCCAAATAATCAATCCTACAATGTCCAAATTTTACTTTAAACTGGAATTTCCAGACTTCC
TTTCTGCATTAACCAGTTTAACTAGACAGTAACGAAATATTCCTACTTTATGCTGTGATAGTTTGTATTATTATT
TATTTATTTATTTATTTATTTGAGACAGAGTTTCGCTCTTGTGTCAGTGAGCCAGGATCATGCCATTGCACTCCA
GCCTGGTCAACGGAGCGAGACTCCGCCTCATTAAAAA

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FIGURE 4421

ATCTTGCTTTTCCTTTAATCCGGCAGTGACCGTGTGTCAGAACAACTTTGAATCATGAAGCTACTAACCAGAGCCG
GCTCTTTCTCGAGATTTTATTCCCTCAAAGTTGCCCCCAAAGTTAAAGCCACAGCTGCGCCTGCAGGAGCACCGC
CACAACTCAGGACCTTGAGTTTACCAAGTTACCAAATGGCTTGGTGATTGCTTCTTTGGAAAATATTCTCCTG
TATCAAGAATTGGTTTGTTCATTAAAGCAGGCAGTAGATATGAGGACTTCAGCAATTTAGGAACCAACCATTTGC
TGCGTCTTACATCCAGTCTGACGACAAAAGGAGCTTCATCTTTCAAGATAACCCGTGGAATTGAAGCAGTTGGTG
GCAAATTAAGTGTGACCGCAACAAGGGAAAACATGGCTTATACTGTGGAATGCCTGCGGGGTGATGTTGATATT
TAATGGAGTTCTGCTCAATGTCAACACAGCACCAGAATTCGTCGTTGGGAAGTAGCTGACCTTCAGCCTCAGC
TAAAGATTGACAAAGCTGTGGCCTTTTCAAGATCCGCAGACTCATGTCATTGAAAATTTGCATGCAGCAGCTTACC
AGAATGCCTTGGCTAATCCCTTGTATTGTCTGACTATAGGATTGGAAAAGTGACATCAGAGGAGTTACATTACT
TCGTTTCAAGAACATTTTCAAGAGTGAAGAATGGCTTTGATTGGACTTGGTGTGAGTCATCCTGTTCTAAAGCAAG
TTGCTGAACAGTTTCTCAACATGAGGGGTGGGCTTGGTTTATCTGGTGCAAAGGCCAACTACCGTGGAGGTGAAA
TCCGAGAACAGAAATGGAGACAGTCTTGTCCATGCTGCTTTTGTAGCAGAAAGTGCTGTCGCGGGAGTGACAGAGG
CAAATGCATTTAGTGTTCTTTCAGCATGTCTTCGGTGCTGGGCCACATGTCAAGAGGGGCAGCAACACCACCAGCC
ATCTGCACCAGGCTGTTGCCAAGGCAACTCAGCAGCCATTTGATGTTTCTGCATTTAATGCCAGTTACTCAGATT
CTGGACTCTTTGGGATTTATACTATCTCCAGGCCACAGCTGCTGGAGATGTTATCAAGGCTGCCTATAATCAAG
TAAAAAGAATAGCTCAAGGAAACCTTTTCCAACACAGATGTCCAAGCTGCCAAGAACAAGCTGAAAGCTGGATACC
TAATGTCAAGTGGAGTCTTCTGAGTGTTTCTTGGGAAGAAGTCGGGTCCCAGGCTCTAGTTGCTGGTTCTTACATGC
CACCATCCACAGTCCCTTCAGCAGATTGATTTCAGTGGCTAATGCTGATATCATAAATGCGGCAAGAAGTTTGT
CTGGCCAGAAGTCAATGGCAGCAAGTGGAAATTTGGGACATACACCTTTTGTGATGAGTTGTAACTACTGATGCA
CACATTACAGGAGAGAGCTGAACGTTCTCTCACCAGAGCAGCAAAACACATGAAAGTCAGAAGTCTCTAATATAT
CATTTGTCTTTTTTCCAGTGAGGTAAAATAAGGCATAAATGCAGGTAATTATTTCCAGCTGACCTAAAGTCAATA
AAACATTCTGTTT

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FIGURE 4422

MKLLTRAGSF SRFYSLKVAPKVKATAAPAGAPPQPQDLEFTKLPNGLVIASLENYSPVSRIGLFIKAGSRYEDFS
NLGTTHLLRLTSSLTTKGASSFKITRGIEAVGGKLSVTATRENMAYTVECLRGDVDILMEFLNVTTAPEFRRWE
VADLQPQLKIDKAVAFQNPQTHVIENLHAAAYQNALANPLYCPDYRIGKVTSEELHYFVQNHFTSARMALIGLV
SHPVLKQVAEQFLNMRGGLGLSGAKANYRGGEIREQNGDSLHAAAFVAESAVAGSAEANA FSVLQHVLGAGPHVK
RGSNTTSHLHQAVAKATQPPFDVSAFNASYSDSGLFGIYTISQATAAGDVIKAAYNQVKRIAQGNLSNTDVQAAK
NKLKAGYLMVESSECFLEEVGSQALVAGSYMP PSTVLQQIDSVANADI INAAKKFVSGQKSMAASGNLGHTPFV
DEL

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FIGURE 4423

AGTCCTCTTCCGGGTGATGGCGGCGGGTGCCCCGGATGTAGCCCTGGCGCAAGCATCTCTCTTTTTTCCACCTC
GCCTTCCGCGGATTCCCAGCTTGAGAAACACCTCTTTGCCCCGTCTGTCCTCAAAGAGGAAAGTGACCTTCCAAGGC
GTGGGAGATGAGGAGGATGAGGATGAAATCATTGTCCCCAAGAAGAAGCTGGTGGACCCCTGTGGCTGGGTCAGGG
GGTCCTGGGAGCCGCTTTAAAGGCAAACACTCTTTGGATAGCGATGAGGAGGAGGATGATGATGATGGGGGGTCC
AGCAAATATGACATCTTGGCCTCAGAGGATGTAGAAGGTGAGGAGGCAGCCACACTCCCCAGCGAGGGGGGTGTT
CGGATCACACCCTTTAACCTGCAGGAGGAGATGGAGGAAGGCCACTTTGATGCCGATGGCAACTACTTCCTGAAC
CGGGATGCTCAGATCCGAGACAGCTGGCTGGACAACATTGACTGGGTGAAGATCCGGGAGCGGCCACCTGGCCAG
CGCCAGGCCTCAGACTCGGAGGAGGAGGACAGCTTGGGCCAGACCTCAATGAGTGCCCAAGCCCTCTTGGAGGGA
CTTTTGGAGCTCCTATTGCCTAGAGAGACAGTGGCTGGGGCACTGAGGCGTCTGGGGGCCCCGAGGAGGAGGCAAA
GGGAGAAAGGGGCTGGGCAACCCAGTTCCCCTCAGCGCTGGACCGGCTCTCCGGGTTGGCCGACCAGATGGTG
GCCCCGGGCAACCTTGGTGTGTACCAGGAAACAAGGGAACGGTTGGCTATGCGTCTGAAGGGTTTGGGGTGTGAG
ACCCTAGGACCCCAACAATCCACACCCCCACCCTCCCTGGACATGTTGCTGAGGAGTTGGCGGAGGAGGAACTG
GAGACCCCAACCCCTACCCAGAGAGGAGAAGCAGAGTCGCGGGGAGATGGTCTGGTGGATGTGATGTGGGAATAT
AAGTGGGAGAACACGGGGGATGCCGAGCTGTATGGGCCCTTACCAGCGCCCAGATGCAGACCTGGGTGAGTGAA
GGCTACTTCCCGGACGGTGTATTGCGGGAAGCTGGACCCCCCTGGTGGTCAGTTCTACAACCTCAAACGCATT
GACTTTGACCTCTACACCTGAGCCCTGCTGGGGGGCCAGTTTGGTGGGCCCTTCTTCTGACTTTGTGGAGGAG
GCACCAAGTGTCTCAGGCAGCGAGGAAATTGGAGGCCATTTTTCAGTCAATTTCCCTTTCCCAATAAAAGCCTTT
AGTTGTGTAAAAA

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FIGURE 4424

MPKRKVTFGVGDEEDEDEIIVPKKKLVDPVAGSGGPGSRFKGKHSLSDEEEDDDDGSSSKYDILASEDVEGQE
AATLPSEGGVRITPFNLQEEMEEGHFDADGNYFLNRDAQIRDSWLDNIDWVKIRERPPGQRQASDSEEDSLGQT
SMSAQALLEGLLELLLPRETVAGALRRLGARGGGKGRKGPGQPSSPQRDLRLSGLADQMVARGNLGVYQETRERL
AMRLKGLGCQTLGPHNPTPPPSLDMFAEELAEELLETPTPTQORGEAESRGDGLVDVMWEYKWENTGDAELYGPFT
SAQMOTWVSEGYFPDGVYCRKLDPPGGQFYNSKRIDFDLYT

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FIGURE 4425

AAACAGGCCATTGTTGCTGAGCGAGGATGAAGAAGATACCAAGAGAGTTGTCCGCAGTGCCAAGGACAAGAGGTT
TGAGGAGCTGACCAACCTTATCCGGACCATCCGTAATGCCATGAAGATTTCGTGATGTCACCAAGTGCCTGGAAGA
GTTTGAGCTCCTGGGAAAAGCATATGGGAAGGCCAAAAGCATTGTGGACAAAAGAAGGTGTCCCCCGGTTCTATAT
CCGCATCCTGGCTGACCTAGAGGACTATCTTAATGAGCTTTGGGAAGATAAGGAAGGGAAGAAGAAGATGAACAA
GAACAATGCCAAGGCTCTGAGCACCTTGCGTCAGAAGATCCGAAAATACAACCGTGATTTCGAGTCCCATATCAC
AAGCTACAAGCAGAACCCCGAGCAGTCTGCGGATGAAGATGCTGAGAAAAATGAGGAGGATTGAGAAGGCTCTTC
AGATGAGGATGAGGATGAGGACGGAGTCAGTGCTGCAACTTTCTTGAAGAAGAAATCAGAAGCTCCTTCTGGGGA
GAGTCGCAAGTTCTTCAAAAAGATGGATGATGAAGATGAGGACTCAGAAGATTCCGAAGATGATGAAGACTGGGA
CACAGGTTCCACATCTTCCGATTCCGACTCAGAGGAGGAAGAAGGGAAAACAAACCGCGCTGGCCTCAAGATTTCT
TAAAAAGGCACCCACCACAGATGAGGACAAGAAGGCAGCCGAGAAGAAACGGGAGGACAAAGCTAAGAAGAAGCA
CGACAGGAAATCCAAGCGCTGGATGAGGAGGAGGAGGACAATGAAGGCGGGGAGTGGGAAAGGGTCCGGGGCGG
AGTGCCGTTGGTTAAGGAGAAGCCAAAATGTTTGCCAAGGGAACTGAGATCACCCATGCTGTTGTTATCAAGAA
ACTGAATGAGATCCTACAGGCACGAGGCAAGAAGGGAAGTATCGTGCTGCCCAGATTGAGCTGCTGCAACTGCT
GGTTCAGATTGCAGCGGAAAACAACCTGGGAGAGGGCGTCATTGTCAAGATCAAGTTCAATATCATCGCCTCTCT
CTATGACTACAACCCCAACCTGGCAACCTACATGAAGCCAGAGATGTGGGGGAAGTGCCTGGACTGCATCAATGA
GCTGATGGATATCCTGTTTGCAAATCCCAACATTTTGTGGAGAGAAATATTCTGGAAGAGAGTGAGAACCTGCA
CAACGCTGACCAGCCACTGCGTGTCGTTGGTGCATCCTAACTCTGGTGGAACGAATGGATGAAGAATTTACCAA
AATAATGCAAAATACTGACCCTCACTCCCAAGAGTACGTGGAGCACTTGAAGGATGAGGCCAGGTGTGTGCCAT
CATCGAGCGTGTGCAGCGCTACCTGGAGGAGAAGGGCACTACCGAGGAGGTCTGCCGCATCTACCTGCTGCGCAT
CCTGCACACCTACTACAAGTTTGATTACAAGGCCCATCAGCGACAGCTGACCCCGCTGAGGGCTCCTCAAAGGT
GAGCAAGACCAGGCAGAAAATGAGGGCGAGGACTCGGCTGTGTTGATGGAGAGACTGTGCAAGTACATCTACGCC
AAGGACCGCACAGACCGGATCCGCACATGTGCCATCCTCTGCCACATCTACCACCATGC

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FIGURE 4426

GGCCCTGCGGTGTGACTCGCGGGCTCAGCTGGTTGGTATTTTTTGGGCCTCGTGCTTCGTGGTGGGAGACCCAGG
TCGAGGTCCGGCCGTAGCACCTCCGCGCCGTCGCCATGTCGCGGTTTTTACCACCGGTTCCGGACAGCGAGTCCG
AGTCGTCTTGTCCGGGGAGGAGCTCGTCACCAAACCTGTGCGAGGCAACTATGGCAAACAGCCATTGTTGCTGA
GCGAGGATGAAGAAGATACCAAGAGAGTTGTCCGCAGTGCCAAGGACAAGAGGTTTGAGGAGCTGACCAACCTTA
TCCGGACCATCCGTAATGCCATGAAGATTCTGTGATGTCACCAAGTGCCCTGGAAGAGTTTGAGCTCCTGGGAAAAG
CATATGGGAAGGCCAAAAGCATTGTGGACAAAGAAGGTGTCCCCCGGTTCTATATCCGCATCCTGGCTGACCTAG
AGGACTATCTTAATGAGCTTTGGGAAGATAAGGAAGGGAAGAAGAAGATGAACAAGAACAATGCCAAGGCTCTGA
GCACCTTGCGTCAGAAGATCCGAAAATACAACCGTGATTTCGAGTCCCATATCACAAGCTACAAGCAGAACCCCG
AGCAGTCTGCGGATGAAGATGCTGAGAAAATGAGGAGGATTGAGAAGGCTCTTCAGATGAGGATGAGGATGAGG
ACGGAGTCAGTGCTGCAACTTTCTTGAAGAAGAAATCAGAAGCTCCTTCTGGGGAGAGTCGCAAGTTCTCTCAAAA
AGATGGATGATGAAGATGAGGACTCAGAAGATTCCGAAGATGATGAAGACTGGGACACAGGTTCCACATCTTCCG
ATTCCGACTCAGAGGAGGAAGAAGGGAAACAAACCGCGCTGGCCTCAAGATTTCTTAAAAAGGCACCCACCACAG
ATGAGGACAAGAAGGCAGCCGAGAAGAAACGGGAGGACAAAGCTAAGAAGAAGCAGCAGAGGAAATCCAAGCGCC
TGGATGAGGAGGAGGAGGACAATGAAGGCGGGGAGTGGGAAAGGGTCTGGGGCGGAGTGCCGTTGGTTAAGGAGA
AGCCAAAATGTTTGGCAAGGGAAC TGAGATCACCCTGCTGTTGTTATCAAGAACTGAATGAGATCCTACAGG
CACGAGGCAAGAAGGGAAC TGATCGTGCTGCCAGATTGAGCTGCTGCAACTGCTGGTTGAGATTGCAGCGGAAA
ACAACCTGGGAGAGGCGCTCATTGTCAAGATCAAGTTCAATATCATCGCCTCTCTCTATGACTACAACCCCAACC
TGGCAACCTACATGAAGCCAGAGATGTGGGGGAAGTGCCTGGACTGCATCAATGAGCTGATGGATATCCTGTTTG
CAAATCCCAACATTTTTTGTGGAGAGAATATTCTGGAAGAGAGTGAGAACCTGCACAACGCTGACCAGCCACTGC
GTGTCCGTGGCTGCATCCTAACTCTGGTGGAACGAATGGATGAAGAATTACCAAAATAATGCAAAATACTGACC
CTCACTCCCAAGAGTACGTGGAGCACTTGAAGGATGAGGCCAGGTGTGTGCCATCATCGAGCGTGTGCAGCGCT
ACCTGGAGGAGAAGGGCACTACCGAGGAGGTCTGCCGCATCTACCTGCTGCGCATCCTGCACACCTACTACAAGT
TTGATTACAAGGCCCATCAGCGACAGCTGACCCCGCTGAGGGCTCCTCAAAGTCTGAGCAAGACCAGGCAGAAA
ATGAGGGCGAGGACTCGGCTGTGTTGATGGAGAGACTGTGCAAGTACATCTACGCCAAGGACCGCACAGACCGGA
TCCGCACATGTGCCATCCTCTGCCACATCTACCACCATGCTCTGCACTCGCGCTGGTACCAGGCCCGCGACCTCA
TGCTCATGAGCCACTTGACAGACAACATTGAGCATGCAGACCCGCCAGTGAGATCCTTTACAACCGCACCATTGG
TGCAGCTGGGCATCTGTGCTTCCGCCAAGGCCTGACCAAGGACGCACACAACGCCCTGCTGGACATCCAGTCTGA
GTGGCCGAGCCAAGGAGCTTCTGGGCCAGGGCTGCTGCTGCGCAGCCTGCAGGAGCGCAACCAGGAGCAGGAGA
AGGTGGAGCGGCGCCGTGAGGTCCCCTTCCACCTGCACATCAACCTGGAGCTGCTGGAGTGTGTCTACCTGGTGT
CTGCCATGCTCCTGGAGATCCCCTACATGGCCGCCCATGAGAGCGATGCCCGCCGACGCATGATCAGCAAGCAGT
TCCACCACCAGCTGCGCGTGGGCGAGCGACAGCCCTGCTGGGTCCCCCTGAGTCCATGCGGGAACATGTGGTCTG
CTGCCTCCAAGGCCATGAAGATGGGTGACTGGAAGACCTGTCACAGTTTTATCATCAATGAGAAGATGAATGGGA
AAGTGTGGGACCTTTTCCCGAGGCTGACAAAGTCCGCACCATGCTGGTTAGGAAGATCCAGGAAGAGTCACTGA
GGACCTACCTCTTACCTACAGCAGTGTCTATGACTCCATCAGCATGGAGACGCTGTCAGACATGTTTGAGCTGG
ATCTGCCCCTGTGCACTCCATCATCAGCAAAATGATCATTAAATGAGGAGCTGATGGCTCCCTGGACCAGCCAA
CACAGACAGTGGTGTATGCACCGCACTGAGCCCACTGCCAGCAGAACCTGGCTCTGCAGCTGGCCGAGAAGCTGG
GCAGCCTGGTGGAGAACAACGAACGGGTGTTTGACCACAAGCAGGGCACCTACGGGGGCTACTTCCGAGACCAGA
AGGACGGCTACCGCAAAAACGAGGGCTACATGCGCCGCGGTGGCTACCGCCAGCAGCAGTCTCAGACGGCCTACT
GAGCTCTCCACTCTGTTTCCCGCCTGGGCCATCCAACCTGAAGTCTTAAACCACACCTCAGTCACTAAAGGTCT
GTTTAAAGTTGTTCTGGTTGATTGCTTGTGTCACAAAGGTGTGTTGAGCCCATTCATTGCTGATTATATTCT
GAGCTGCTACCACATGACAGACACAAGGCTCAGATGAAGAGGTGAATTGAACACGTTCTTGACCTC

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FIGURE 4427A

AGAGGAGCTTCTTAATAACTTTGCCAGCAAATAGGAGCCTGGAGATTCTGCCTGTACTTTCTCTCCAGCACTAG
GAATGACTATGTAATGATGTACAGTTTAAACAGTTTTTGAGAATCTGATCAATAAAATGTGGCTTGGGGTCCCATC
TCAGGATAAGATGGAAATCCGTAGCTGTCTGCCAAACTCCTTTTGGCTCACCATAAAACCTTACCTTACTTTAT
CCGGAACAAGCTCTGCAAAGTTATTGTTGATATTGGACGTCAGGATTGGCCCATGTTCTACCACGACTTTTTTAC
TAACATTTTACAGTTGATCCAGTCCCCTGTGACAACCCCCCTTGGGCTGATCATGTTGAAGACAACCTTCAGAAGA
GCTGGCTTGTCCCCGTGAGGACCTCAGTGTGGCTCGGAAGGAGGAGTTGCGGAAGCTGCTACTGGACCAGGTGCA
GACAGTGTCTGGGCTACTGACAGGTATCTTGGAGACTGTCTGGGACAAACACAGTGTACTGCTGCCACTCCACC
ACCATCCCCGACCTCAGGAGAAAGTGGTGACTTACTGAGTAACCTGTTGCAGAGTCCCAGTTCAGCCAAACTGTT
GAATCAGCCAATTCCCATCCTTGATGTGGAGAGTGAGTATATCTGTTCCCTGGCTTTGGAGTGCCTGGCCCATCT
CTTCAGTTGGATTCTCTGTCTGCCAGCATACCCCCATCCCTCCTTACCACCATCTTCCACTTTGCACGATTGG
CTGTGACATCCGGGCCAGAAAGATGGCGTCAGTTAACGGCAGCAGCCAGAAGTGTGTCTCGGGTCAGGAGCGCGG
CCGGCTGGGGGTCTTGGCCATGTCTGTCATCAATGAACCTCATGTCCAAGAAGTGTGTGCCTATGGAATTTGAGGA
GTATTTACTGCGTATGTTCCAGCAGACTTTCTACCTCCTGCAGAAAATCACCAGGATAACAATGCCACACAGT
GAAGAGCAGGCTAGAAGAGCTCGATGAGAGCTATATCGAGAAGTTTACTGACTTTCTTCGGCTCTTTGTGAGTGT
TCACCTAAGAAGAATCGAGTCTTACTCCCAGTTCCTGTGGTGGAGTTTTTGACACTTTTGTTCAGTACACATT
TCATCAGCCTACTCATGAAGGTTACTTCTCTTGTGTTGGATATCTGGACGCTGTTTTTGGACTATCTGACAAGTAA
AATTAAGTGCCTCTTGGAGACAAGGAAGCAGTTCTCAACAGGTACGAAGATGCCCTGGTGTCTCTGCTCACAGA
GGTGTGAATCGAATCCAGTTCAGATACAACCAAGCCAGCTGGAGGAGTTGGATGATGAGACTCTGGATGACGA
TCAGCAGACGGAGTGGCAGCGGTACTTACGGCAGAGCTTGGAGGTGGTGGCCAAAGTATGGAGCTCCTGCCAC
GCACGCTTCTCCACACTGTTCCCTGTTCTTCAGGACAATTTAGAAGTTTATTTGGGATTACAACAGATTATAGT
CACTTCAGGGTCAGGACACAGGTTGAACATCACGGCGGAGAACGACTGCCGGCGGCTGCCTCTCCCTGAGAGA
CTTGAGCTCCCTGCTGCAGGCCGTGGGCCGCTGGCCGAGTACTTTATCGGGGATGTGTTTGTGTCACGGTTCAA
TGATGCCCTCACAGTCGTGGAAAGGTTGGTCAAAGTCACTCTGTACGGATCTCAGATAAAATTGTACAACATTGA
AACTGCTGTGCCATCAGTATTGAAACCTGACCTCATTGATGTGCACTGCTCAGTCCCTGGCTGCGCTGCAGGCTTA
CTCTCACTGGTTAGCACAGTATTGCAGTGAAGTTTACCGGCAGAACACGCAGCAGTTTCGTGACACTCATCTCTAC
TACCATGGATGCAATCACACCTCTAATCAGCACCAGGTCCAAGACAAGCTGCTGCTATCTGCGTGCCACTTACT
GGTCTCACTGGCCACCACCGTGCGGCCCGTCTTTCTGATCAGCATCCCTGCAGTGCAGAAAGTATTCAACAGAAT
CACTGATGCCCTGCCCCTGCGACTTGTGCGATAAGGCCAGGTGTTGGTGTGCCGAGCCCTCTCTAACATCTTGCT
GCTTCCGTGGCCAAACCTTCCAGAGAATGAGCAGCAGTGGCCCGTGCCTCCATCAACCACGCCAGCCTCATCTC
TGCACTCTCCCGGACTATCGCAACCTGAAGCCAGTGTGTTGCCCCACAGAGAAAGATGCCACTGGATGACAC
CAAAC TGATTATCCACCAGACACTCAGCGTCTTAGAAGATATTGTGGAGAATATCTCGGGGGAGTCCACCAAGTC
TCGACAGATTGCTACCAGTCGCTGCAGGAATCTGTTTCAAGTCTCCCTGGCCCTCTTTCCAGCTTTTATCCATCA
GTCAGATGTGACTGATGAGATGCTGAGCTTCTTCTCACTCTGTTTTCAGGCCTTAGAGTACAGATGGGTGTGCC
TTTCACTGAGCAAATCATAACAGACTTTCTCAACATGTTTACCAGAGAGCAGTTAGCCGAGAGCATCCTCCACGA
GGGCAGCACAGGCTGCCGGGTGGTGGAGAAGTTTCTGAAGATCCTGCAGGTGGTGGTCCAGGAGCCAGGCCAGGT
GTTCAAGCCCTTCTCCCCAGCATCATCGCCCTGTGCATGGAGCAAGTGTATCCCATCATTGCCGAGCGTCCCTC
CCCTGATGTGAAGGCCGAGCTGTTTGAGCTCCTTTTCCGGACGCTCCATCACAACTGGAGGTACTTCTTCAAGTC
CACCGTGTGGCCAGTGTCCAGAGGGGGATCGCTGAGGAGCAGATGGAGAATGAGCCCCAGTTCAGTGCCATCAT
GCAGGCTTTCCGGACAGTCTTTCTCCAGCCCCGACATCCACCTTTTTAAACAAAATCTCTTCTACTTGGAGACTCT
CAACACCAAGCAGAAAGCTGTACCACAAGAAGATCTTCCGACTGCCATGCTGTTCCAGTTTGTGAACGTGCTGCT
CCAGGTCTGGTCCACAAGTCCCATGATCTTCTGCAGGAGGAGATTGGCATCGCCATCTACAACATGGCCTCAGT
CGACTTTGATGGCTTCTTTGCCGCCCTTCTCCAGAGTTCCTGACCAGCTGTGATGGTGTGGATGCCAACAGAA
AAGTGTGCTGGGGCGGAATTTCAAGATGGATCGGGACCTGCCCTCATTACCCAGAATGTGCACAGGCTGGTCAA
CGACCTGCGCTACTACAGACTCTGCAACGACAGCCTGCCCCCTGGCACTGTGAAGCTCTAGGCCTGCTACTGCCT
GGGGACACGGACTTCTGCTGCTGCCACCTGCGCCAGCCCTACCTTCCACCACAGATGTCTCCAGATGGGCCTTG
GTCACACTCCTTGGCTTCTCCACCGCAAGCAACGCTGCCTGCCTCTGCCGCTCCTCCACATCTTGCCGCTGCC
AGCAGAGCTGGCTTCTGGGTCCACCTGAGCACTGGACGGTGTCTCCAGGGCGTTGGAGCAGGCGGAGGGGTGTGT
GGCCAGGTACTAGGAGGCACCAGGAAATCCCGCGGGGTGGCCCATGCAGACCAGGCGCACGTGGCTCATGGGGCA

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FIGURE 4427B

GAATTGCCAAGGACAGCTCACGACAGTGCCACCTTCTCACCATTCCAGCCAAGGAGAGATGTGACGTTGGAAC TG
CTCTGGCACTTCTGTCAAGCCTCCCCCGCCCCAATTGCC TTGAGATCTCTGCTCTTTGTCAGAGATTTGCAAAGA
CTCACGTTTTTGTGTGTTTTCTCATCATTCCATTGTGATACTAAGAACTAAGAAGCTTAATGAAAAGAAATAAAA
TGCCTATGTTGTTGTTCTAG

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FIGURE 4428

MMYSLTVFENLINKMWLGVP SQDKMEIRSCLPKLLLAHHKTLPHYFIRNKLCKVIVDIGRQDWPMFYHDFFTNILQ
LIQSPVTTPLGLIMLKTSEELACPREDLSVARKEELRKLLLDQVQTVLGLLTGILETVWDKHSVTAATPPPSPT
SGESGDLLSNLLQSPSSAKLLNQPIPIILDVESEYICSLALECLAHLFSWIPLSASITPSLLTTIFHFARFGCDIR
ARKMASVNGSSQNCVSGQERGRGLGVLAMSCINELMSKNCVPMEFEEYLLRMFQQTFFYLLQKITKDNNHTVKSRL
EELDESYIEKFTDFLRFLFVSVHLRRIESYSQFPVVEFLTLLFKYTFHQPTHEGYFSCLDIWTLFLDYLTSTIKSR
LGDKEAVLNRYEDALVLLLTEVLNRIQFRYNQAQLEELDDDETLDQTEWQRYLRQSLEVVAKVMELLPTHAFS
TLFPVLQDNLEVYLGLOQFIVTSGSGHRLNITAENDCRLHCSLRDLSSLLQAVGRLAEYFIGDVFAARFNDALT
VVERLVKVTLYGSQIKLYNIETAVPSVLKPDLDVHAQSLAALQAYSHWLAQYCSEVHRQNTQQFVTLISTTMDA
ITPLISTKVQDKLLLSACHLLVSLATTVRPVFLISIPAVQKVFNRTDASALRLVDKAQVLVCRALSNILLPWP
NLPENEQQWPVRSINHASLISALSRDYRNKPSAVAPQRKMPDDTKLIHQTLVLEDIVENISGESTKSRQIC
YQSLQESVQVSLALFPAFIHQSDVTDEMLSFLLTLFRGLRVQMGVPFTEQIIQTFLNMFTREQLAESILHEGSTG
CRVVEKFLKILQVVVQEPGQVFKPFLPSIIALCMEQVYPIIAERPSPDVKAELFELLFRTLHHNWRYFFKSTVLA
SVQRGIAEEQMENEPQFSAIMQAFGQSFLQPDHILFKQNLFYLETNLTKQKLYHKKIFRTAMLFQFVNVLQVLV
HKSHDLLQEEIGIAIYNMASVDFDGFFAAFLPEFLTSCDGDANQKSVLGRNFKMDRDLPSFTQNVHRLVNDLRY
YRLCNDLPPGTVKL

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FIGURE 4429

TCTCTCTCGGCGTTTCCGCTGTCAGGGCCTGCGGTGTGACTCGCGGGCTCAGCTGGTCCGGCCGTAGCACCTCCG
CGCCGTGCGCATGTGCGGGTTTTTACCACCGGTTCCGGACAGCGAGTCCGAGTCGTCTTGTCCGGGGAGGAGCT
CGTCACCAAACCTGTGCGGAGGCAACTATGGCAAACAGCCATTGTTGCTGAGCGAGGATGAAGAAGATACCAAGAG
AGTTGTCCGAGTGCCAAGGACAAGAGGTTTGAGGAGCTGACCAACCTTATCCGGACCATCCGTAATGCCATGAA
GATTGCTGATGTACCAAGTGCCCTGGAAGAGTTTGAGCTCCTGGGAAAAGCATATGGGAAGGCCAAAAGCATTGT
GGACAAAGAAGGTGTCCCCCGGTTCTATATCCGCATCCTGGCTGACCTAGAGGACTATCTTAATGAGCTTTGGGA
AGATAAGGAAGGGAAGAAGAAGATGAACAAGAACAATGCCAAGGCTCTGAGCACCTTGCGTCAGAAGATCCGAAA
ATACAACCGTGATTTCGAGTCCCATATCACAAGCTACAAGCAGAACCCCGAGCAGTCTGCGGATGAAGATGCTGA
GAAAAATGAGGAGGATTGAGAAGGCTCTTCAGATGAGGATGAGGATGAGGACGGAGTCAGTGTGCAACTTTCTT
GAAGAAGAAATCAGAAGCTCCTTCTGGGGAGAGTCGCAAGTTCTCAAAAAGATGGATGATGAAGATGAGGACTC
AGAAGATTCCGAAGATGATGAAGACTGGGACACAGGTTCCACATCTTCCGATTCCGACTCAGAGGAGGAAGAAGG
GAAACAAACCGCGCTGGCCTCAAGATTTCTTAAAAAGGCACCCACCACAGATGAGGACAAGAAGGCAGCCGAGAA
GAAACGGGAGGACAAAGCTAAGAAGAAGCAGCAGGAAATCCAAGCGCTGGATGAGGAGGAGGAGGACAATGA
AGGCGGGGAGTGGGAAAGGGTCCGGGGCGGAGTGCCGTTGGTTAAGGAGAAGCCAAAAATGTTTGCCAAGGGAAC
TGAGATCACCCATGCTGTTGTTATCAAGAACTGAATGAGATCCTACAGGCACGAGGCAAGAAGGGAACCTGATCG
TGCTGCCCAGATTGAGCTGCTGCAACTGCTGGTTGAGATTGACGCGGAAAACAACCTGGGAGAGGGCGCTCATTGT
CAAGATCAAGTTCAATATCATCGCCTCTCTCTATGACTACAACCCCAACCTGGCAACCTACATGAAGCCAGAGAT
GTGGGGGAAGTGCTTGGACTGCATCAATGAGCTGATGGATATCCTGTTTGCAATCCCAACATTTTGTGAGAGA
GAATATTCTGGAAGAGAGTGAGAACCTGCACAACGCTGACCAGCCACTGCGTGTCCGTGCTGCTGCTGCTGCTGCT
GGTGGAACGAATGGATGAAGAATTTACCAAAATATGCAAAATACTGACCCCTCACTCCCAAGAGTACGTGGAGCA
CTTGAAGGATGAGGCCAGGTGTGTGCCATCATGAGCGTGTGACGCGTACCTGGAGGAGAAGGGCACTACCGA
GGAGGTCTGCGCATCTACCTGCTGCGCATCTGACACCTACTACAAGTTTGATTACAAGGCCCATCAGCGACA
GCTGACCCCGCCTGAGGGCTCTCTCAAAGTCTGAGCAAGACCAGGCAGAAAATGAGGGCGAGGACTCGGCTGTGTT
GATGGAGAGCATGTGCAAGTACATCTACGCCAAGGACCGCACAGACCGGATCCGCACATGTGCCATCCTCTGCCA
CATCTACCACCATGCTCTGCACTCGCGTGGTACCAGGCCCCGCGACCTCATGCTCATGAGCCACTTGCAGGACAA
CATTGAGCATGACAGCCCGCCAGTGACATCCTTTACAACCGCACCATGGTGCAGCTGGGCATCTGTGCCCTCCG
CCAAGGCCTGACCAAGGACGCACACAACGCCCTGCTGGACATCCAGTCGAGTGGCCGAGCCAAGGAGCTTCTGGG
CCAGGGCCTGCTGCTGCGCAGCCTGACAGGAGCGCAACCAGGAGCAGGAGAAGGTGGAGCGGCGCCGTCAGGTCCC
CTTCCACCTGCACATCAACCTGGAGCTGCTGGAGTGTGTCTACCTGGTGTCTGCCATGCTCCTGGAGATCCCCTA
CATGGCCGCCCATGAGAGCGATGCCCGCCGACGCATGATCAGCAAGCAGTTCCACCACCAGCTGCGCGTGGGCGA
GCGACAGCCCCCTGCTGGGTCCCCCTGAGTCCATGCGGGAACATGTGGTCTGCTGCTTCCAAGGCCATGAAGATGGG
TGACTGGAAGACCTGTACAGTTTTATCATCAATGAGAAGATGAATGGGAAAGTGTGGGACCTTTTCCCCGAGGC
TGACAAAGTCCGCACCATGCTGGTTAGGAAGATCCAGGAAGAGTCACTGAGGACCTACCTCTTACCTACAGCAG
TGTCTATGACTCCATCAGCATGGAGACGCTGTGACACATGTTTGAGCTGGATCTGCCCCTGTGCACTCCATCAT
CAGCAAAATGATCATTAATGAGGAGCTGATGGCCTCCCTGGACCAGCCAACACAGACAGTGGTGTGACCCGCAC
TGAGCCCACTGCCCAGCAGAACCTGGCTCTGACGCTGGCCGAGAAGCTGGGCAGCCTGGTGGAGAACAACGAACG
GGTGTGTTGACCACAAGCAGGGCACCTACGGGGGCTACTTCCGAGACCAGAAGGACGGCTACCGCAAAAACGAGGG
CTACATGCGCCGCGGTGGCTACCGCCAGCAGCAGTCTCAGACGGCCTACTGAGCTCTCCACTCTGTTTCCCGCCT
GGGCCATCCAACCTTGAAGTCTTAAACCACACCTCAGTCACTAAAGGTCTGTTTAAAGTTGTTCTGGTTGATTGC
TTGTTGCCACAAAGGTGTGTTGAGCCCATTCATTTGCTGATTATATTTCTGAGCTGCTACCACATGACAGACACA
AGGCTCAGATGAAGAGGTGAATTGAAC

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FIGURE 4430A

ATGGACCAAGGCCCTTGGCGGTGCGTTGCGCATGCGCCCCGGGCGCCCGGACTGAAGTAGCAATGGACGCGCTG
GAGTCGTTGTTGGACGAAGTCGCTCTGGAGGGGCTCGATGGCCTGTGTCTGCCAGCGCTGTGGAGCCGGCTGGAG
ACGCGAGTGCCGCCCTTCCCGCTGCCTTTGGAACCTTGACGCAGGAGTTTCTCTGGCGGGCCCTCGCCACGCAC
CCGGGCATCAGCTTCTATGAGGAGCCTCGGGAGCGACCCGACCTACAGCTCCAGGACCGGTATGAAGAAATTGAT
TTGGAAACTGGAATTTTGGAGTCTAGGAGGGACCCGGTGGCTTTGGAGGATGTCTACCCCATTCATATGATCTTA
GAGAATAAGGATGGCATCCAGGGCTCATGCCGCTACTTTAAGGAGAGGAAAAACATTACCAATGACATCAGAACC
AAGTCCTTGACGCTCGCTGTACAATGGTGGAAAGCCTTTGACAGGTGGGGGAAGAACTGATCATCGTTGCCTCC
CAAGCCATGCGGTACAGGGCCTTGATAGGCCAGGAGGGGGATCCCGACCTGAAGCTGCCCGACTTCTCCTACTGC
ATCCTGGAACGGCTAGGCCGGTCCAGGTGGCAAGGGGAGCTCCAGCGAGACCTTCACACCAGTCTTTCAGGTT
GATGCTGGGAAGCTGCACTATCACAGAAAAATTTGAACAAAAACGGGCTGATTACAATGCAGTCCCATGTGATC
CGATTACCCACTGGAGCCCAGCAACACTCAATCCTCCTCTACTGAACCGGTTTCATGTGGACAGGAGGAGCAAA
TACGACATCCTCATGGAGAAGCTTTCGGTCATGCTGAGCACACGGACTAACACATAGAGACGTGGGAAAGCTG
AGGGAAGAGCTGGGGCTGTGCGAAAGGACGTTAAGCGTCTGTACCAGTATATGCTGAACGCCGGGCTAGCCAAG
GTGGTGTCTCTTCGCTTGCAAGAGATCCACCTGAATGTGGACCTTGTAAGACAAAGAAAGGGACCGACGTCATG
GTTCCGGTGCCCTCAAGCTGCTGAAGGAATTTAAACGGAATGACCATGATGATGACGAGGACGAGGAGGTCTCTCC
AAGACAGTGCCCTCAGTGACATTGTGTTTCGAGCGGGATATGCTCACACAGACCTACGACCTCATTGAGCGCAGA
GGCAGCAAGGAATTTCCCAAGCTGAAATCCGAGTGCGTATGAATGTGGGAAAAGTGAAGCAAGAATGCTGTGC
CGACTTCTTCAAAGATTCAAAGTTGTCAAGGGATTCTGAAGACGAAGGTCGGCAGCGAACCACCAAGTACATT
TCCTGCGTGTTTGAGAGGAGAGCGACCTAAGCCGGCAGTACCAAAGAGAGAAGGCCCGCAGCGAGCTCTTGACC
ACCGTGAGCCTGGCGTCTATGCAGGAGGAGTCGCTTCTGCTGAAGGCGAGGACACCTTCTCTGAGTCGGAC
AGTGAGGAGGAGAGGAGCAGCAGCAAGCGGAGAGGCGAGGGTCCAGAAAGACACAAGAGCCTCTGCAACCTC
CGCCCAAGACCCAGCCTCATCACTCCACCCCAACCAAGGGTGGGTGGAAAGTTGTAAACCTACACCCATTGAAA
AAGCAGCGCCCTCCTTCCCAGGAGCTGCTGAAGAGAGAGCCTGCCAGAGCCTTGCCAGCAGGGACAGCCTCTTA
GATACCAGCAGCGCTCTCAGAACCAACGTGTCTTTGTCTCCCACTGTGCGGACAGCAACAGTGGTGACATAGCT
GTGATCGAGGAGGTCCGGATGGAAGAACCAAGGAGAGTAGCAGTTCCCTGAAGACTGGGAGGCACAGCTCAGGC
CAAGACAAACCACACGAAACTTACCGACTGCTGAAACGCAGGAATCTGATCATAGAAGCTGTACCAATCTTCGC
TTAATCGAGAGTTTATTACGATTGAGAAAGATGATCATGGATCAGGAGAAGCAGGAAGGCGTGCCACCAAGTGC
TGCAAGAAGTCCATTGTCCGCTTGGTGCGGAACCTGTCTGAGGAAGGTCTCTTGCGATTGTATCGGACCACTGTC
ATTCAAGATGGCATCAAGAAGAAGGTGGATCTGGTGGTGACCCGTCATGGACCAGAACGACCCCTCTAGTGAGA
AGTGCCATCGAGCAGGTCCGCTTCCGGATCTCCAATTCAAGCACAGCCAACAGGGTTAAACTTCCCAGCCTCCA
GTGCCCCAAGGGGAGGCAGAGAAGACAGTCAAGGAAAAGAGGGCCCAAGTGGATCAGGGGACTCTCAGCTGAGT
GCTTCTCTAGATCAGAAAGTGGACGGATGAAAAAAGTGAATAAAATGGGCATAACCCCGCTTAGAAATTAT
CACCCCATTTAGATTCCCGGACTGGGGCCTTCTCTAGGATTCTGCCCCAAATGCCTCGCCTGCGGGTGGTCCAC
ATGTTTCTGTGGTACCTCATCTACGGGCACCTGCCAGCAACACCGTGGAGAAGCCAAGCTTCATCAGTGAACGG
AGAACGATAAAGCAGGAGTCAGGCAGGGCAGGCGTCCGCGCTCCTCCTGGAAGTGCCTGGGAGGCCTGCTCT
GAAGCCCCATCTAAAGGCAGCCAAGATGGTGTACCTGGGAGGCTGAAGTGGAGCTTGCCACGGAGACAGTGTAT
GTCGACGATGCCTCGTGGATGCGCTACATCCCCCAATCCAGTCCACAGGGACTTCGGCTTTGGCTGGGCTCTC
GTCAGCGACATCCTCCTCTGCCTTCCCTCTCCATCTTCATCCAGATTGTGCAAGTCAGCTACAAGGTGGACAAC
CTGGAGGAATTTCTGAACGACCCGCTGAAGAAGCACACGCTGATCCGCTTCTCCCCAGGCCCATTCGGCAGCAG
CTTCTGTACAAGAGGCGTTACATTTTTTTCGGTGGTGGAGAACCTTCAGAGGCTGTGCTACATGGGGCTGCTACAG
TTTGGTCCCACGGAAGTTTCAGGATAAAGATCAGGTCTTTATCTTCTGAAGAAGAATGCAGTCATTGTTGAC
ACTACCATCTGCGACCCACATTACAACCTGGCCCGCAGCAGCCGGCCCTTCGAGAGGCGCCTCTATGTCTGAAAC
TCAATGCAGGATGTGGAAACTACTGGTTTGACCTGCAGTGCCTCTGCCTCAACACCCCACTAGGCGTGGTGCGC
TGCCCGCGCTCAGGAAGAACAGCAGCACAGACCAGGGCAGCGACGAGGAGGGCAGCCTGCAGAAGGAGCAGGAG
AGCGCCATGGACAAGCACAACTGGAGCGCAAGTGCGCCATGCTGGAGTACACCACTGGAAGCCGTGAGGTGGTG
GATGAAGGCTTGATCCCTGGAGATGGGCTGGGTGCCGCAGGGCTCGATTCCAGCTTCTACGGACACCTCAAGCGC
AACTGGATCTGGACCAGCTACATCATCAACCAGGCCAAAAGGAGAACACTGCCGCGAGAGAATGGACTCACAGTG
AGGCTCCAGACATTTCTGTCCAAGCGCCCAATGCCCTCAGTGCCAGAGGCAACAGCAGGTTGAATATTTGGGGG

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FIGURE 4430B

GAAGCAAGAGTAGGCTCCGAGCTCTGTGCTGGCTGGGAAGAGCAGTTTGAGGTGGACCGAGAGCCCTCGCTGGAC
CGAAACCGGAGAGTGAGGGGTGGGAAAAGCCAGAAGCGGAAGCGGCTGAAGAAGGACCCTGGGAAGAAGATCAAG
AGAAAGAAGAAAGGAGAGTTCCAGGAGAAAAAGCAAAAGGCTGCGCTACCATGATGAAGCCGACCAGAGTGCC
CTGCAGCGGATGACGCGGCTTCGTGTCACTGGTCTATGCAGGAGGATGGGCTGCTTGTGCTGTGCCGATTGCC
AGCAATGTCTCAACACCAAGGTGAAGGGCCCCATTTGTCACTGGCAGGTGGTACGGGACATTTTGCATGCCACG
TTTGAAGAGTCTTTGGATAAAACATCTCATTCGGTTGGACGAAGAGCTCGCTACATAGTCAAAAACCCACAGGCC
TATCTCAACTATAAAGTGTGCCGTGGCCGAGGTGTACCAGGATAAAGCACTTGTGGAGATTTTCATGAATCGAAGA
GGTGACTATGATGACCCAAAGGTTTGTGCCAACGAGTTTAAAGAATTTGTGGAGAAGCTTAAAGAAAAGTTTCAGT
TCAGCCCTAAGGAATTCTAACCTTGAATCCCAGACACACTCCAGGAGCTGTTGCCAGGTACCGAGTTTTGGCA
ATTGGGGATGAAAAGATCAAACCAGGAAAGAGGATGAACCTAACAGCGTGGATGACATCCACTTCTGGTGCTT
CAGAACCTGATCCAGAGCACGCTGGCCCTCTCAGACAGTCAGATGAAGTCTACAGTCATTCCAGACTTTCCGC
CTCTATCGGGAGTACAAGGACCACGTTCTTGTGAAGGCCTTCATGGAGTGCCAGAAGAGGAGCTTGGTCAACCGG
CGCCGGGTCAACCACACGCTGGGCCCAAGAAGAACCGGGCCCTCCCTTCGTGCCAATGTCTTACCAGCTATCC
CAGACCTACTACAGGATTTTACGTGGCGATTTCCAAGCACCATCTGCACGGAGTCATTCCAGTTTTTGGACAGA
ATGCGGGCTGCCGGCAAGTTGGACCAGCCTGATCGTTTCTCTTCAAAGACCAGGATAATAACAGCCCCACAAC
GACATGGTGGCCTTTTCACTGGACGGCCCTGGAGGAAATTGTGTGGCCGTCTTGACCTCTTCTCTGGCCCTC
ATTTCTGTGGATGTCAAGGATCCCGGAGCAGATCATCGTGGTAGACAGCTCAATGGTGGAGAATGAGGTCATCAA
AGCTTGGGGAAGGACGGCAGCCTGGAGGATGACGAGGATGAAGAGGATGACTTGGACGAAGGTGTAGGGGGCAAG
CGCCGGAGCATGGAGGTGAAACCTGCGCAAGCCTCCACACCACTACCTGCTGATGAGGGGCTACTACTCCCC
GGCATCGTCAGCACCCGCAACCTCAACCCCAACGACAGCATTGTGGTCAACTCCTGCCAGATGAAGTTCCAGCTC
CGCTGCACCCCTGTGCCCCCGGCTCAGGCCCGCTGCCGCTCCTCTGGAAGAGCTAACAATGGGAACCTCCTGC
CTCCCTGATACGTTTACCAAGCTGATAAACCCCCAGGAAAACACCTGCAGCTTGGAGGAGTTTGTCTCCAGCTG
GAGCTGTCTGGGTATAGTCCCGAAGACCTGACTGCTGCCCTTGGAGATCTTGAAGCCATTATAGCCACGGGTGT
TTTGGGATTGACAAGGAGGAGCTGCGCAGACGGTTCTCGGCCTTGGAGAAGGCAGGTGGTGGGCGCACCAGGACA
TTTCGAGATTGCATCCAGGCCCTCCTGGAGCAGCATCAGGTGCTGGAGGTGCGTGGCAACACTGCGCGCCTGGTA
GCCATGGGCTCTGCCTGGCCTTGGCTCCTGCACTCCGTGCGGCTGAAAGACAGAGAAGACGCCGACATCCAGAGA
GAAGACCCCCAGGCCAGACCCCTGGAGGGGTCTTCCAGTGAGGACAGCCCCCGAGGGGCAGGCACCTCCTTCT
CACAGCCCCCGGGCACCAAGAGGCGCGCAGCTGGGCCAGTGAGAATGGGGAGACCGACGCCGAGGGCACCCAG
ATGACCCCTGCCAAGAGGCCAGCGCTCCAGGACTCAAATTTGGCCCCAGCCTTGGGCCCGGAGCTGAAGATGGG
GCAGAAGCCCAGGCCCATCTCCACCCCAAGCTCTTGAAGACACCGCTGCAGCGGGAGCAGCACAGGAAGACCAA
GAGGGTGTGCGGTGAGTTTCAAGTTCCCAAGGCCAAGAGCAGCTGAGCGGCCAGGCGCAGCCTCCAGAGGGCTCTGAA
GACCCAGAGGGTTTACAGAGAGTTTTCGGAGCTGCCAACATCTCCAGGCAGCACGGGAAAGGGACTGTGAGAGT
GTCTGCTTTCATCGGCCGGCGTGGCGTGTCTGGATGGCCACCTGAACCTTCTGTATGCAAGGGTATGATGGAG
GCCATGCTGTACCACATCATGACCAGGCCTGGCATCCCCGAGAGCTCCCTGCTGCGCCACTACCAGGGGGTCTTG
CAGCCCGTCCCGTGTCTGGAGTTGCTCCAGGGCCTGGAGTCCCTCGGCTGCATCCGGAAGCGCTGGCTGAGAAAG
CCAAGGCCTGTCTCGCTCTTCTCTACACCCGTGGTGGAAAGAGGTGGAAGTGCCCTCCAGCCTGGACGAGAGCCCC
ATGGCTTTCTATGAGCCACCTTGGACTGTACCCTCCGGCTGGGCCGTGTGTTCCCCACAGAGGTCAACTGGAAC
AAGTGATCCACCTCTAGGACCCCTGTGGGCGTCCCTCCCTCCAGCCACCGCCTGCCACACCCTCCTGCCTG
GTGCTCGGCAGACCCCACTGTGCCCTGGCCTTGGGTCTGCCGAGCCTCCTGCAGCAGGGGACGGGTGCTTTGGCC
AGAGTCACAGACTGACACGTTTCCCACTGTACTGGAACCTCTGGAAGAGGGGCTCCCCGACCTGCCCATCCCCA
GGCTCTTCTGGGCCTTCCCTTGGGAACCTGGCCTCATCAGCTGGGAGTTGGTGTCTTCTGTCTCTGGGTCTCCA
GAGTTTGCCCCGCTGTGCACACCTCACATTCCAGACTCTAGCCATCTCGGCAGGATCTCCTGGCTCCTTGAGTG
CCCAGGTGCCACCAAGAGGAAGGGCCTTGTGGGATACACCTTGAGAATAGGGATCGGTGTCCCCGCTGCGAGG
GGCCCCCATGGGGGCTGTGGCCCTCCGAGGCAGGACATCCAACCCCTGGCTGGGACTGAACCACCCAGAGC
GGAGCGGCTCCCTTTTACGCTTGTGAGTCACCTGGCAGGCCCCAGCTGGGCTGGCTGTCCGTGTCCCTCAGCCT
GGCTGGTGATTCTTGCAGG

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FIGURE 4431

CGTATCCGCTAGCGCGGCCTGGGATGCGCTTGGGCTCCCTGTTTCGTTCCCACATGCAGGGCAGCACAAGGAGAAT
GGGCGTCATGACTGATGTCCACCGGCGCTTCCTCCAGTTGCTGATGACCCATGGCGTGCTAGAGGAATGGGACGT
GAAGCGCTTGCAGACGCACTGCTACAAGGTCCATGACCGCAATGCCACCGTAGATAAGTTGGAGGACTTCATCAA
CAACATTAACAGTGTCTTGGAGTCCTTGTATATTGAGATAAAGAGAGGAGTCACGGAAGATGATGGGAGACCCAT
TTATGCGTTGGTGAATCTTGTACAACCTTCAATTTCCAAAATGGCTACGGATTTTGCAGAGAATGAACTGGATTT
GTTTAGAAAGGCTCTGGAACCTGATTATTGACTCAGAAACCGGCTTTGCGTCTTCCACAAACATATTGAACCTGGT
TGATCAACTTAAAGGCAAGAAGATGAGGAAGAAGGAAGCGGAGCAGGTGCTGCAGAAGTTTGTTCAAAACAAGTG
GCTGATTGAGAAGGAAGGGGAGTTACCCCTGCACGGCCGGGCCATCCTGGAGATGGAGCAATACATCCGGGAGAC
GTACCCCGACGCGGTGAAGATCTGCAATATCTGTCACAGCCTCCTCATCCAGGGTCAAAGCTGCGAAACCTGTGG
GATCAGGATGCACTTACCCCTGCGTGGCCAAGTACTTCCAGTCGAATGCTGAACCGCGCTGCCCCACTGCAACGA
CTACTGGCCCCACGAGATCCCAAAGTCTTCGACCCTGAGAAGGAGAGGGAGTCTGGTGTCTTGAAATCGAACAA
AAAGTCCCTGCGGTCCAGGCAGCATTAGCCATCGTGCCCTGCTGAGGGGCTGGCTGCCTTGAGTGGCCTGATCGC
CACAGCCCTTCTTGGAAGAAAGGCGTCCGTGTTTCAGGTTCCACGCGAGTCACCTCTTTCGTCTTAATGTTTACC
GTCCACAGCTTTGGAATAAACCATCCTGGG

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FIGURE 4432

GTCGTGATCAGACGAGCGGTGAGCGATCGATACTCCTATGCTAGCCTCTGGCTCCTCAGGGGACACAGCCGAGTG
GTCGGACCAAACGCAACGAGTCTTCGCCAGCCCAAAGGCGACTCGACACCGTCCCAGCTGAAGAGAGGCACGGGA
CTGAACCAGCTGGTGGTGGCCCCGATGGCTGGAGACACCCACTGCCCGCAGAGCCCCCTGGCCAGAGAAGGCACCT
TATGGGAGGGCCCTCAGGGCGCTCCTGCCGCACAGTAAAGAAGACCTGAAGTTGGACCTCGGGGAGAAAGTGGAGA
GGAGCGTGGTGACATTGTTGCAGCGAGCCACTGAGCTCTTCTACGAGGGCAGGAGGGACGAGTGTCTGCAGAGCA
GCGAGGTGATCCTGGACTACTCCTGGGAGAAGCTCAACACGGGCACATGGCAGGACGTAGACAAAGACTGGCGCC
GGGTCTACGCCATCGGCTGCCTCCTGAAAGCCCTGTGTCTGTGCCAGGCACCTGAGGATGCCAACACTGTGGCCG
CAGCCCTGCGGGTCTGTGACATGGGCCTGTGTATGGGGGCAGCCATCCTGGGGGACATCCTTCTTAAAGTCGCTG
CCATCCTCCAGACACACCTCCCTGGAAAGAGGCCTGCCCCGTGGCTCCCTCCCAGAGCAACCCTGCACAAAGAAAG
CAAGGGCGGACCATGGTTTGATTCCAGATGTGAAGTTAGAAAAAACAGTCCCCCGGCTGACCCGTCCGTCCCTCC
AGCATTTACGGGAGCAGTTTTTGGTTCCAGGGAGGCCCCGTGATCCTGAAAGCGTGGCTGACCACTGGCCGTGCA
TGCAGAAGTGGAGTTTGGAGTATATCCAGGAGATCGCTGGCTGCCGAACCTGTCCCAGTGGAGTTGGTTTCAGGTT
ACACAGATGAGGAATGGTCCCAGACCCTCATGACGGTCAACGAGTTTCATCAGCAAATACATCGTGAATGAGCCAA
GGGACGTCCGGTACCTTGCTCAGCACCAGCTCTTTGACCAGATCCCGGAGTTGAAGCAGGACATCAGCATCCCCG
ACTACTGCAGCCTGGGCGATGGGGAGGAGGAAATCACCATCAATGCCTGGTTTGGTCCCCAGGGAACCATCT
CCCCACTACATCAGGATCCCCAGCAAACTTCCTAGTGCAGGTGATGGGGAGGAAGTACATCCGGCTGTATTCCC
CGCAGGAGTCAGGGGCTCTGTACCCTCATGACACGCACCTTCTCCATAACACGAGCCAGGTTGACGTGGAGAATC
CCGACCTGGAAAAGTTCCCCAAGTTTGCCAAGGCCCATTCCTGTCTCCTGCATCCTGTCTCCTGGAGAGATCCTGT
TCATCCCGGTGAAATACTGGCATTACGTGCGGGCTCTGGATTGAGCTTCTCGGTACGCTTCTGGTGGTCTGATAGC
CAGGATAGGAGCTGAAAGGGCCTGACATGCAGACAGCATTTCATCTGTTTACTAATTTTCTGGGTCTGGAATCTA
TAGAGACAAGCAGGACTGAACCTGTGTCTTGAAGAGCCTTCACTGCCAGTGGCAGCCCTGGGGGGCTGAGCTCC
AGCACTGGACAGGCACAGAGCAGGGGCTGCCAGGAAGGAGCACACTCCAGGCCAGGGGTGCATGGCAGAGGAAG
GTGGGGAGAGCCCAGAAGGACATTGCAGACAGACAGCCTGCATGGGGACTCTGGCATCAGAAAGCCGAATGTTTT
TGGGAAACGGGTGGGTACACAGGCAGGGGTGAAACATGGGCTCTGAGGTTGGCTACCTGATTCAAACCCGGCCG
CGCTGTGCACCTGCTGGGTGACTTGGCCAGGATCCCCCACTTCGCTGTGCCCATATGGAAAAGAGGGCAAGGCCA
GTCCTCACTGCCGAGGGCCGAGAAGGCGGTGCCGAGCCCCCTGCTGCTGCATGAACCTTAGCCGCTGTCACTGATC
CCAATTACTCTGATCCTTTTGCCCTTCCTTCCCATAACGGCCTGCTGGACGCCACAGCCTGAATACTGGAGAGAG
CTGGGCATTGCCAGGTCACAGGAGAGAGTCCGTAGAGACCTGCGCAGGAGCCGGGACCCCTGCTGAGCAGTGGG
AGCTTTTCTGTATCCCCATGGCTCAAGGATAACCTACCTGCCTGCAGAGAAGTGCGAAGGTCTTGCTGGATGACT
TTTACCCGCACCTACCCAGGAGCAGGCTCCCAAGTGAAGAAACCACCGAACCATCACCAGCTCCTAGAAGCCTC
CCTCCTACCACCTTCTAGTACCATCCCCCAGAAGTAATGACTCTCAAACCTGGGGGATTGAGGCCAGGGGGAG
AGCCAGGCTCTATGCTTTCTGTAATTGTGTCTCGTTTGTGTGCACGCAGGTTTGTTTTATGTTTGGCCATTAAAG
ATTTTCCCCAGCCCTC

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FIGURE 4433

MAGDTHCPAEPLAREGTLWEALRALLPHSKEDLKLDLGEKVERS VVTLLQRATELFYEGRRDECLQSSEVILDYS
WEKLNTGTWQDVKDWRRVYAIGCLLKALCLCQAPEDANTVAAALRVCDMGLLMGAAILGDILLKVAAILQTHLP
GKRPARGSLPEQPCTKKARADHGLIPDVKLEKTVPRLHRPSLQHFREQFLVPGRPVILKGVADHWPCMQKWSLEY
IQEIAGCRTVPVEVGSRYTDEEWSQTLMTVNEFISKYIVNEPRDVGylaQHQLFDQIPELKQDISIPDYCSLGDG
EEEEITINAWFGPQGTISPLHQDPQONFLVQVMGRKYIRLYSPQESGALYPHDTHLLHNTSQVDVENPDLEKFPK
FAKAPFLSCILSPGEILFIPVKYWHYVRALDLSFSVSFWWS

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FIGURE 4434

GAGCAGTGTGAAGAAGAGGCGAGAACGACCCCCAGACCGACCAAAGCCC GCGCGCCACTGCATCCCGCGTCCAGC
ACCTACGTCCTGCTGCCGTCGCCGCCACCACCATGCCCAACTAAAAAGGCCCTGCAAAGAAGGGAGAGAAGGTA
CCCAAAGGGAAAAAGGGAAAAGCTGATGCTGGCAAGGAGGGGAATAACCCTGCAGAAAATGGAGATGCCAAAACA
GACCAGGCACAGAAAGCTGAAGGTGCTGGAGATGCCAAGTGAAGTGTGTGCATTTTTTGATAACTGTGTACTTCTG
GTGACTGTACAGTTTGGAATACTATTTTTTATCAAGTTTTATAAAAATGTGGAATTTTGTTTTACTTTTTTTTTT
TTTTAAAGCTATGTTGTTAGCACACAGAACACTTCATTGTTGTTTTTGGGGGAAGGGGCATATGTCACTAATAGA
ATGTCCTCAAAGCTGGATTGATGTGGAGAAAACACCTTTCCCTTCTAGTTTTGAGAGACTTCCTCTTGGCTCCCA
GGAGGAGGGATTCCCTGACTTTGACACACATGGCCACCTTGGCACAAAAGCCTTGTTGGTATAGAAAGACAAATTT
GTTTTTATGTCCTCTTCTCCCTTTCCATCTTTTCCAGCATAGACTTAACCTCCCTTAAGCCCAGACATCTGTTGGGAC
CTGACCCCTAGTCATTGGTTACCAGTGTGTGTCAGGCAATCTGGACTTTCCAGTGATGCCACTGAGATGGCACCTGT
CAAAAGAGCAGTGGTTCCATTTCTAGATTGTGGATCTTCAGATAAAATCTGCCATTTTCATTTCACTTCCTGAAA
GTCAGAGATGGCTTGTTGTCCTGTTTCCAGAGCATCAGATGAAGACTTCATTGGGTTTTATAGTGGCTTTCTGATTT
TTGGTAGTCCATTGAAGAAGGGAGTTTGAAAGTTGTTGTATACTGTTAACGATTGTCTGCCCATGTCCTGCCTGA
AATACCATGATTGTTTATGGAAAGTATCTTTAATAAAGCTGGATACAG

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FIGURE 4435

GAAGAGGCGAGAACGACCCCCAGACCGACCAAAGCCCGCGGCCACTGCATCCCGCGTCCAGCACCTACGTCTCTG
CTGCCGTGCGCGCCACCACCATGCCCAAGAGAAAGGCTGAAGGGGATGCTAAGGGAGATAAAAGCCAAGGTGAAGG
ACGAACCACAGAGAAGATCCGCGAGGTTGTCTGCTAAACCTGCTCCTCCAAAGCCAGAGCCCAAGACTAAAAAGG
CCCCTGCAAAGAAGGGAGAGAAGGTACCCAAAGGGAAAAAGGGAAAAGCTGATGCTGGCAAGGAGGGGAATAACC
CTGCAGAAAATGGAGATGCCAAAACAGACCAGGCACAGAAAGCTGAAGGTGCTGGAGATGCCAAGTGAAGTGTGT
GCATTTTTGATAACTGTGTACTTCTGGTGACTGTACAGTTTGGAAATACTATTTTTTATCAAGTTTATAAAAATG
TGGAATTTTGTTTTACTTTTTTTTTTTTTTAAAGCTATGTTGTTAGCACACAGAACACTTCATTGTTGTTTTTGG
GGGAAGGGGCATATGTCACCTAATAGAATGTCTCCAAAGCTGGATTGATGTGGAGGATTCCCTGACTTTGACACAC
ATGGCCACCTTGGCACAAAAGCCTTGTGGTATAGAAAGACAAATT

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FIGURE 4436

G TAGTAGCTGCCAGGCTGTCCCCGCCCTGCCCGGCCCGAGCCCCGCGGGCCGCCGCCGCCACCGCCGCCATGAA
GAAGCAGTTCAACCGCATGAAGCAGCTGGCTAACCCAGACCGTGGGCAGAGCTGAGAAAACAGAAGTCCTTAGTGA
AGATCTATTACAGATTGAGAGACGCTGGACACGGTGGCGTCAATATGCCACCATTCCCATAGCGCTTGGTGGC
ATGTTTCCAGGGCCAGCATGGCACCAGTGGCGAGAGGAGACACAAAAAACTGCCTCTGACAGCTCTTGCTCAAAA
TATGCAAGAAGCATCGACTCAGCTGGAAGACTCTCTCTGGGGAAGATGCTGGAGACGTGTGGAGATGCTGAGAA
TCAGCTGGCTCTCGAGCTCTCCAGCACGAAGTCTTTGTTGAGAAGGAGATCGTGGACCCTCTGTACGGCATAGC
TGAGGTGGAGATTCCCAACATCCAGAAGCAGAGGGAGCAGCTTGCAAGATTGGTGTAGACTGGGATTTCAGTCAG
AGCCAGGTGGAACCAAGCTCACAAATCCTCAGGAACCAACTTTCAGGGGCTTCCATCAAAAATAGATACTCTAAA
GGAAGAGATGGATGAAGCTGGAATAAAGTAGAACAGTGCAAGGATCAACTTGCAGCAGACATGTACAACTTTAT
GGCCAAAGAAGGGGAGTATGGCAAATCTTTGTTACGTTATTAGAAGCCCAAGCAGATTACCATAGAAAAGCATT
AGCAGTCTTAGAAAAGACCCTCCCCGAAATGCGAGCCCATCAAGATAAGTGGGCGGAAAAACCAGCCTTTGGGAC
TCCCTTAGAAGAACCTGAAGAGGAGCGGGCGCAGATTGCGCTGCCCATTTGAAGCCTGTGTATGCTGCTTCT
GGAGACAGGCATGAAGGAGGAGGGCCTTTCCGAATTGGGGCTGGGGCCTCCAAGTTAAAGAGCTGAAAGCTGC
TTTGGACTGTTTACTTCTCACCTGGATGAGTTCTATTAGACCCCCATGCTGTAGCAGGTGCTTTAAATCCTA
TTTACGGGAATTGCCTGAACCTTTGATGACTTTTAATCTGTATGAAGAAATGGACACAAGTTGCAAGTGTGCAGGA
TCAAGACAAAAAATTCAAGACTTGTGGAGAACATGTCAGAAGTTGCCACCACAAAATTTTGTTAACTTTAGATA
TTTGATCAAGTTCTTGCAAAGCTTGCTCAGACCAGCGATGTGAATAAAATGACTCCCAGCAACATTGCGATTGT
GTTAGCCCCTAAC TTGTTATGGGCCAGAAACGAAGGAACACTTGCTGAAATGGCAGCAGCCACATCCGTCCATGT
GGTTGCAGTGATTGAACCCATCATTAGCATGCCGACTGGTTCTTCCCTGAAGAGGTGGAATTTAATGTATCAGA
AGCATTGTACCTCTCACCACCCCGAGTTCTAATCACTCATTCCACACTGGAACGACTCTGACTCGGGGACCCT
GGAGAGGAAGCGGCCGTCTAGCATGGCGGTGATGGAAGGAGACTTGGTGAAGAAGGAAAGTCTCCCAAACCGAA
GGACCCTGTATCTGCAGCTGTGCCAGCACCAGGGAGAAACACAGTCAGATAGCATCTGGCCAAAATCAGCCCCA
GGCAGCTGCTGGCTCCCACCAGCTCTCCATGGGCCAACCTCACAAATGCTGCAGGGCCCCAGCCCGCATACACTGCG
CCGAGCTGTTAAAAAACCCTCCAGCACCCCCGAAACCGGGCAACCCACCTCCTGGCCACCCCGGGGGCCAGAG
TTCTTCAGGAACATCTCAGCATCCACCCAGTCTGTCAACAAAGCCACCCACCCGAGCCCTCTCCTCCCACCCA
GCACACGGGGCCAGCCTCCAGGCCAGCCCTCCGCCCTTCCAGCTCTCAGCACCCCGGAGGTACTCCAGCAGCTT
GTCTCCAATCCAAGCTCCCAATCACCACCGCGCAGCCCCCTACGCAGGGCCACGCCACTGATGCACACCAAACC
CAATAGCCAGGGCCCTCCCAACCCCATGGCATTGCCAGTGAGCATGGACTTGAGCAGCCATCTCACACCCCTCC
CCAGACTCCAACGCCCCCAGTACTCCGCCCTAGGAAAACAGAACCCCACTGCTGCCAGCTCCTCAGACCCTGGC
AGGGGGTAACCTGAAACTGCACAGCCACATGCTGGAACCTTACCAGAGCCGAGACCAGTACCAAAGCCAAGGAA
CCGGCCCAGCGTGCCCCACCCCCCCAACCTCCTGGTGTCCACTCAGCTGGGGACAGCAGCCTACCAACACAGC
ACCAACAGCTTCCAAGATAGTAACAGACTCCAATTCAGGGTCTCAGAACCGCATCGCAGCATCTTTCTGAAGT
GCACTCAGACTCAGCCAGCAAAGACGTGCCTGGCCGCATCCTGCTGGATATAGACAATGATACCGAGAGCACTGC
CCTGTGAAGAAAGCCCTTTCCAGCCCTCCACCACTTCCACCCTGGCGAGTGGAGCAGGGGCAGGCGAACCTCTT
TCTTTGCAGACCGAACAGTGAAAAGCTTTTCACTGGAGGACAAAGGAGGGCCTCACTGTGTGGACCTGGCCTTCT
GCACGGCCCAAGGAGAACCTGGAGGCCACCCTAAAGCTGAATGACCTGTGTCTTGAAGAAGTTGGCTTTCTTTA
CATGGGAAGGAAATCATGCCAAAAAATCCAAAACAAAGAAGTACCTGGAGTGGAGAGAGTATTCTGTCTGAAAC
GCGCATAGGAAGCTTTTGTCCCTGCTGTAAATGCGGGCAGCACCTACAGCAACTTGAATGAGTAAGAAGCAGTG
CGTTAACTATCTATTTAATAAAATGCGCTCATTATGCAAGTCGCCTACTCTCTGCTACCTGGACGTTTCTTTA
TGTATTAGGAGGGAGGCTGCGCTCCTTCAGACTTGCTGCAGAATCATTTTGTATCATGTATGGTCTGTGTCTCCC
CAGTCCCCTCAGAACCATGCCATGGATGGTGAAGTCTGCTGGCTCTGTACCTCATCAAACCTGGATGTGACCCATGC
CGCCTCGTTGGATTGTGGAATGTAGACAGAAATGTACTGTTCTTTTTTTTTTTTTTAAACAATGTAATTGCTAC
TTGATAAGGACCGAACATTATTCTAGTTTCATGTTAATTTGAATTAATATATTCTGTGGTTTATATG

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FIGURE 4437

MKKQFNRMKQLANQTVGRAEKTEVLSEDLLQIERRLDTVRSICHHSHKRLVACFQGQHGTDAERRHKKLPLTALA
QNMQEASTQLEDSSLGKMLETCGDAENQLALELSQHEVFVEKEIVDPLYGIAEVEIPNIQKQREQLARLVLDWDS
VRARWNQAHKSSGTNFQGLPSKIDTLKEEMDEAGNKVEQCKDQLAADMYNFMMAKEGEYGKFFVTLLAQADYHRK
ALAVLEKTLPEMRAHQDKWAEKPAFGTPLEEHLKRSGREIALPIEACVMLLLETGMKEEGLFRIGAGASKLKKLK
AALDCSTSHLDEFYSDPHAVAGALKSYLRELPEPLMTFNLYEEWTQVASVQDQDKKLQDLWRTCQKLPPQNFVNF
RYLIKFLAKLAQTSVDNKMTPSNIAIVLAPNLLWARNEGTLAEMAAATSVHVAVIEPIIQHADWFFPEEVEFNV
SEAFVPLTTPSSNHSFHTGNDSDSGTLERKRPASMAVMEGDLVKKESPPKPKDPVSAAVPAPGRNNSQIASGQNO
PQAAAGSHQLSMGQPHNAAGPSPHTLRRVKKPAPAPPKPGNPPPGHPGGQSSSGTSQHPPSLSPKPPTRSPSP
TQHTGQPPGQPSAPSQLSAPRRYSSSLSPIQAPNHPPQPPTQATPLMHTKPNSQGPNNPMALPSEHGLEQPSHT
PPQTPTPPSTPPLGKQNP SLPAQTLAGGNPETAQPHAGTLPRPRVPKPRNRPSVPPPPQPPGVHSAGDSSLTN
TAPTASKIVTDSNSRVSEPHRSIFPEVHSDSASKDVPGRILLDIDNTESTAL

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FIGURE 4438A

GAAACCTCTAGGTCCACCACCTCCATCTTACACGTGTTTCCGTTGTGGTAAACCTGGACATTATATTAAGAATTG
CCCAACAAATGGGGATAAAACTTTGAATCTGGTCTAGGATTAAAAAGAGCACTGGAATCCCAGAAGTTTCAT
GATGGAAGTGAAAGATCCTAATATGAAAGGTGCAATGCTTACCAACACTGGAAAATATGCAATACCAACTATAGA
TGCAGAAGCATATGCAATTGGGAAGAAAGAGAAACCTCCCTTCTTACCAGAGGAGCCATCTTCTCCTCAGAAGA
AGATGATCCTATCCCAGATGAATTGTTGTGTCTCATCTGCAAGGATATTATGACTGATGCTGTTGTGATTCCCTG
CTGTGGAACAGTTACTGTGATGAATGTATAAGAACAGCACTCCTGGAATCAGATGAGCACACATGTCGGACGTG
TCATCAAAATGATGTTTCTCCTGATGCTTTAATTGCCAATAAAATTTTACGACAGGCTGTAAATAACTTCAAAA
TGAACTGGCTATACAAAAGACTACGAAAACAGTTACCTCCTCCACCACCCCAATACCACCTCCGAGACCACT
GATTACAGAGGAACCTACAACCTCTGATGAGATCTCCGATATCAAGACAACAAGATCCTCTTATGATTCCAGTGAC
ATCTTCATCAACTCACCAGCTCCGTCTATATCTTCATTAACCTTCTAATCAGTCTTCTTGGCCCCCTCCTGTGTC
TGGAAATCCGTCTTCTGCTCCAGCTCCTGTACCTGATATAACTGCAACAGTATCCATATCAGTTCATTACAGAAA
ATCAGATGGACCTTTTCGGGATTCTGATAATAAAATATTGCCAGCTGCAGCTCTTGATCAGAGCACTCAAAGGG
AACCTCCTCAATTGCAATTACCGCTCTTATGGAAGAGAAGGGTTACCAGGTGCCTGTTCTTGGAACCCCATCTTT
GCTTGGACAGTCATTATTGCATGGACAGTTGATCCCCAAGCTGGTCCAGTAAGAATAAATACTGCTCGTCCAGG
TGGTGGTCGACCAGGCTGGGAACATTCCAACAACTTGGCTATCTGGTTTCTCCACCACAACAAATTAGAAGAGG
GGAGAGGAGCTGTACAGAAGTATAAACCGTGGGCGACACCACAGCGAAAGATCACAGAGGACTCAAGGCCCGTC
ACTACCAGCAACTCCAGTCTTTGTACCTGTTCCACCACCTCCTTTGTATCCGCCTCCTCCCCATACACTTCCTCT
CCCTCCGGGTGTTCTCCTCCACAGTTTCTCCTCAGTTTCTCCTGGCCAGCCACCACCGCTGGGTATAGTGT
CCCTCCTCCAGGGTTTCTCCTCAGCTCCTGCCAATTTATCAACACCTTGGGTATCATCAGGAGTGCAGACAGCTCA
TTCAAAATACCATCCCAACAACACAAGCACCACCTTTGTCCAGGGAAGAATTCTATAGAGAGCAGCGACGACTAAA
AGAAGAGTCTAAATCTCCCTATAGTGGTTCTTCGTATTCAAGAAGTTCATATACTTATTCTAAATCAAGATCTGG
TTCAACACGTTACGCTCTTATTCTCGATCATTACGCGCTCACATTCTCGTTCCTATTACGGTCACCTCCATA
CCCCAGAAGAGGCAGAGGCAAGAGCCGCAATTACCGTTACGGTCTAGATCTCATGGATATCATCGATCTAGGTC
AAGGTCACCCCCCTTACAGACGCTATCATTACAGTCAAGATCTCCTCAAGCGTTTAGGGGACAGTCTCCTAATAA
ACGTAATGTACCTCAAGGGGAAACAGAACGTGAATATTTTAATAGATACAGAGAAGTTCACCACCATATGACAT
GAAAGCATATTATGGGAGAAGTGTGACTTTAGAGACCCATTTGAAAAGAAGCGCTACCGAGAAATGGGAGAGAAA
ATATAGAGAGTGGTATGAAAAATATTATAAAGGTTATGCTGCTGGAGCACAGCCTAGACCCTCAGCAATAGAGA
GAACTTTTCTCCAGAGAGATTTTTGCCACTTAACATCAGGAATTCTCCCTTCACAAGAGGCCGAGAGAACTA
TGTTGGTGGGCAAAGTCATAGAAGTCGAAACATAGGTAGCAACTATCCAGAAAAGCTTTACGCAAGAGATGGTCA
CAATCAGAAGGATAATACAAAGTCAAAAGAGAAGGAGAGTGAAAACGCTCCAGGAGATGGTAAAGGAAATAAGCA
TAAGAAAACACAGAAAAAGAAGAAAGGGGAGGAAAGTGAGGGTTTTCTGAACCCAGAGTTATTAGAGACTTCTAG
GAAATCAAGAGAACCTACAGGTGTTGAAGAAAATAAACAGACTCATTGTTTGTCTCCCAAGTAGAGATGATGC
CACACCTGTTAGAGATGAACCAATGGATGCAGAATCAATCATTTTAAATCAGTGTCTGAAAAAGACAAGAGAGA
AAGGGATAAACCAAAGCAAAGGGTGATAAACCAAACGGAAGAATGATGGATCTGCTGTGTCCAAAAAAGAAAA
TATTGTAAAACCTGCTAAAGGACCCCAAGAAAAAGTAGATGGAGAACGTGAGAGATCTCCTCGATCTGAACCTCC
AATTAAGAAAGCCAAAGAGGAGACTCCGAAGACTGACAATACTAAATCATCATCTTCTCTCAGAAGGATGAAAA
AATCACTGGAACCCCCAGAAAAGCTCACTCTAAATCAGCAAAAGAACCAAGAAACAAAACCACTCAAGAGGGA
AAAAGTGAAGAAGGACTATTCCAAAGATGTCAAATCAGAAAAGCTAACAACTAAGGAAGAAAAGGCCAAGAAGCC
TAATGAGAAAAACAAACCACTTGATAATAAGGGAGAAAAAGAAAAAGAAAACTGAAGAAAAAGGCGTAGATAA
AGATTTTGAGTCTTCTTCAATGAAAATCTCGAACTAGAAGTGAATAGTGAACCATCACCAAAGCGCAA
AATGGAACCTGATACTGAAAAATGGATAGGACCCCTGAAAAGGACAAAATTTCTTTAAGTGCGCCAGCCAAAAA
AATCAAACCTCAACAGAGAACTGGGAAGAAAATTGGAAGTACAGAAAATATATCAAACACAAAAGAACCTCTGA
AAAATTGGAGTCAACATCTAGCAAAGTTAAACAAGAAAAAGTCAAAGGAAAGGTCAGACGAAAAGTGAAGAAC
TGAAGGATCCAGCTCAACTCTGGTGGATTACACCAGTACGAGCTCAACTGGAGGCAGTCTGTGCGGAAATCTGA
AGAAAAACAGATACAAAGCGAAGTGTGATTAAACGATGGAAGAATATAATAATGACAATACCGCGCCAGCTGA
AGATGTTATCATTATGATTAGGTTCTCAATCCAAATGGGATAAAGATGACTTTGAATCTGAAGAAGAAGATGT
TAAATCCACACAGCCTATATCAAGTGTAGGAAAACCTGCTAGTGTTATAAAAAATGTTAGTACAAAGCCATCAAA
TATAGTCAAGTATCTGAGAAAGAAAGTGAGCCATCCGAGAAAATTCAGAAAATTCACCAAGGACGTGAGCCATGA

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FIGURE 4438B

AATCATACAACATGAGGTTAAAAAGTTCAAAAACTCTGCATCTAGTGAAAAAGGGAAAACCAAAGATCGAGATTA
TTCAGTGTGGAAAAAGGAGAACCTGAAAAGAGGAAGAACAGCACTCAGCCAGAGAAAGAGAGTAATTTGGACCG
TCTGAATGAACAAGGAAATTTTAAAAAGTCTGTCTCAATCTTCCAAAGAGGCTAGAACGTCAGATAAACATGATT
CACTCGTGCTTCCTCAAAATAAAGACTTCACTCCCAATAGAGACAAAAAACTGACTATGACACCAGAGAGTATTC
AAGTTCCAAACGTAGAGATGAAAAGAATGAATTAACAAGACGAAAAGACTCTCCTTCTCGGAATAAAGATTCTGC
ATCTGGACAGAAAAATAAACCAAGGGAAGAGAGAGATTTGCCTAAAAAAGGAACAGGAGATTCCAAAAAAGTAA
TTCTAGTCCCTCAAGAGACAGAAAAACCTCATGATCACAAAGCCACTTATGATACTAAACGGCCAAATGAAGAGAC
AAAAATCTGTAGATAAAAAATCCTTGTAAGGATCGTGAGAAGCATGTATTAGAAGCAAGGAACAATAAAGAGTCAAG
TGGCAATAAACTACTTTATATACTTAACCCACCAGAGACACAGGTTGAAAAAGAGCAAATTACTGGGCAAATTGA
CAAGAGTACTGTCAAGCCTAAACCCAGTTAAGTCATTCTCTAGACTTTCTCTGACTTAACTAGAGAACTGA
TGAAGCTGCTTTTGAACCAGACTATAATGAAAGTGACAGTGAAAGTAATGTTTCTGTAAAAGAAGAGGAATCTTC
AGGAAACATTTCTAAGGACCTGAAAGATAAAATAGTGGAGAAAGCAAAGAGAGCCTGGACACAGCAGCAGTTGT
CCAGGTGGGCATAAGCAGGAATCAGAGCCACAGCAGCCCCAGCGTCAGCCCCAGCAGAAGCCACAGTCCTTCTGG
AAGCCAGACCCGAAGCCACAGTAGCAGTGCCAGCTCAGCAGAAAGTCAGGACAGCAAGAAGAAGAAAAAGAA
GGAAAAGAAAAACACAAGAAACATAAAAAAGCATAAGAAGCATAAGAAACATGCAGGCACTGAAGTGGAATTGGA
AAAAAGCCAAAAACACAACACAAGAAAAAGAGTCAAAAGAAGACAAAGATAAAGAGAAGGAGAAGGAGAAAGA
TGACCAAAAAGTGAAATCTGTCACTGTGTAAAAAGACAGATTTTTTAAATTGACTTAATTACTAAGTCATCTGTA
TTAAATTTTGTATAATGTAAAGAGATTCAAGCCTTGTAATAATGACATGGAAGACCCTGTGCTGCACCTAAAA
TATTGCTGCTTGATTATTTGATTTTACATCAGAGCTTTATAACACGAACCTTTGTACAGAATTGTGAGTTGTGA
CCATGTAACATGAGAGGTTTTGCTAGGGCCTATTATTTTAAACCACCATTAAATTAGTTGGGGTGGAGTTTACTGT
AATGTGAAATTTTACATTTGAATTTTTTAATTGCCTGGCAAAAGCTGATATAAGTTCTAAAAATATCAGCAGAAT
GATTTGCTGAATTCATTACAACCTGTTATGTCACCTTTTGAATTACAATAAAAGTTTTTCAGTAAACTTTTC

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FIGURE 4439

MATTKAIDDSSASISLAQLTKTANLAEANASEEDKIKAMMSQSGHEYDPINYMKKPLGPPPPSYTCFRCGKPGHY
IKNCPTNGDKNFESGPRIKKSTGIPRSFMMEVKDPNMKGAMLTNTGKYAIP TIDAEAYAIGKKEKPPFLPEEPSS
SSEEDDPIPELLCLICKDIMTDAVVIPCCGNSYCD ECI RTALLESDEHTCPTCHQNDVSPDALIANKFLRQAVN
NFKNETGYTKRLRKQLPPPPPIPPPRPLIQRNLOPLMRSPISRQODPLMIPVTSSSTHPAPSISLTSNQSSLA
PPVSGNPSSAPAPVPDITATVSI SVHSEKSDGPF RDSDNKILPAAALASEHSGTSSIAIT ALMEEKGYQVPVLG
TPSLLGQSLLHGQLIPTTG PVRINTARPGGGRPGWEHSNKLGYLVSP PQQIRRGERSCYRSINRGRHHSERSQRT
QGPSLPATPVFVPVPPPLYPPPPHTLPLPPGVPPPQFSPQFPQGPPFAGYSVPPPGFPPAPANLSTPWVSSGV
QTAHSNTIPTTQAPPLSREEFYREQRRLKEESKSPYSGSSYSRSSYTYSKSRSGSTRSRYSRSFSRSHSRYSR
SPPYPRRGRGKSRNYSRSHGYHRSRSPPYRRYHSRSPQA FRGQSPNKRNVFQGETEREYFNRYREVPP
PYDMKAYYGRSVD FRDPFEKERYREWERKYREWYEKYKGYAAGAQPRPSANRENFS PERFLPLNIRNSPFTTRGR
REDYVGGQSHRSRNIGSNYPEKLSARDGHNQKDN TK SKEKESENAPGDGKGNKHKHKKRRKGESESEGLNPELL
ETSRKSREPTGVEENKTD SLFVLP SRDDATPVRDEPMDAESITFKSVSEKDKRERDKPKAKGDKTKRKNDSAVS
KKENIVKPAKG PQEKVDGERERSPRSEPP IKKAKEETPKTDNTKSSSSSQKDEKITGTPRKAHKS SAKEHQETKP
VKEEKVKKDYSKDVKSEKLT TKEEKAKKPNEKNKPLDNKGEKRRKRT EKGVDKDFESSMKISKLEVTEIVKPS
PKRKMEPDTEKMDRTPEKDKISLSAPAKKI KLNRETGKKIGSTENISNTKEPSEKLESTSSKVKQEKVKGVRRK
VTGTEGSSSTLVDTSTSTSGGSPVRKSEKTDTKRTVIKTMEEYNNDNTAPAE DVIIMI QVPQSKWDKDDFESE
EEDVKSTQPISSVGKPA SVIKNVSTKPSNIVKYPEKESEPSEKIQKFTKDV SHEIIQHEVKSSKNSASSEK GKTK
DRDYSVLEKENPEKRKNSTQPEKESNLDRLNEQGNFKSLSQSSKEARTSDKHDSTRASSNKDFTPNRDKKTDYDT
REYSSSKRRDEKNELTRRKDSPSRNKDSASGQKNKPREERDLPKKGTGDSKKSNSSPSRDRKPHDHKATYDTKRP
NEETKSVDKNPKCKDREKHVLEARNNKESSGNKLLYILNPPETQVEKEQITGQIDKSTVKPKPQLSHSSRLSSDLT
RETDEAAFE PDYNESDSESNVSVKEESSGNISKDLKDI VEKAKESLDTAAVVQVGISRNQSHSSPSVSPSRSH
SPSGSQTRSHSSSASSAESQDSK KKKKKKKKKKKKKKKKKKKHAGTEVELEKSQKHKKKKKKSKKNKDKEKE
KEKDDQKVKSVTV

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FIGURE 4440

TGACATTGTGCCC GTTGGCGGATTCTCGATTTCCTCTTCCCCGTCCTCGTCCTCCTCCTCCCCCATGAAGTGA
TTCTGAGTATCGGGGGGTCTCTGGATTATTGTTCTGACGAACCCCTGCTTGTGGTTGGGGGGTATTTAATCTGAG
GCCTTAGGGTCC TTCGGTGICTTTGAGTGTGTTGTGTGTACATATTTTACTCTTAAAGTTTATAAAATATACGTAT
ATTGAGAGTGTCCACGTCTCCTCGCTGAACCTTAGGAATCCCTTGGCACCATGTCTGTGTGCATTATAAAATTTT
CCTCTAAACTCAACTATGATACCGTCACCTTTGATGGGCTCCACATCTCCCTCTGCGACTTAAAGAAGCAGATTA
TGGGGAGAGAGAAGCTGAAAGCTGCCGACTGCGACCTGCAGATCACCAATGCGCAGACGAAAGAAGGTAAGGGCC
GCTTGGTCTTAAGATATTTGGTGGCTGGAGAGAGATACTAGCTAGAAGGTGCCTGGCAGGAAGCTAACCGCCATT
ATGTCTCTAGTGGGGACTGTTTCGTTCTAGTACTTTGGATACAACTTTCATTGATAGCCAAGGTTTGCAGCAGTTG
GCCTTGGAGTTTCAC TGGTTTTATTTTATTTCTGCATACTTGGGTCACTGTAAACAGGCTAACCCAAAACGTGGAA
GCCTGATTATTCTTCTCGCTGTTTTTTTAAATGAGGGAGGGAGGAGAGGGGGATAGCTATCTAGACTCTTTGAGT
GCTTGTCTTAGGGCGTTTTCTA ACTTATTTTCCATCAGGAGGGCAGGAGAGCCTGTGCAAAGCTTGTTTGTTCAA
TCAGC

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FIGURE 4441

MSCVHYKFSSKLNVDTVTFDGLHISLCDLKKQIMGREKLKAADCDLQITNAQTKEGKGRLVLRYLVAGERY

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FIGURE 4442

GGCACGAGGGAGCGGTGCGGAGGCTCTGCTCGGATCGAGGTCTGCAGCGCAGCTTCGGGAGC**ATC**AGTGTGCAG
TGACTGCAGGGAAGCTGGCACGGGCACCGGCCGACCCTGGGAAAGCCGGGGTCCCCGGAGTTGCAGCTCCCCGGAG
CTCCGGCGGGCGGCTCCACCGGCGAAAGAGATCCCGGAGGTCTTAGTGGACCCACGCAGCCGGCGGCGCTATGTGC
GGGGCCGCTTTTTGGGCAAGGGCGGCTTTGCCAAGTGCTTCGAGATCTCGGACGCGGACACCAAGGAGGTGTTTCG
CGGGCAAGATTGTGCCTAAGTCTCTGCTGCTCAAGCCGCACCAGAGGGAGAAGATGTCCATGGAAATATCCATT
ACCGCAGCCTCGCCCCACCAGCACGTCTGATGATTCCACGGCTTTTCGAGGACAACGACTTCGTGTTTCGTGGTGT
TGGAGCTCTGCCGCGGAGGTCTCTCCTGGAGCTGCACAAGAGGAGGAAAGCCCTGACTGAGCCTGAGGCCCCGAT
ACTACCTACGGCAAATTGTGCTTGGCTGCCAGTACCTGCACCGAAACCGAGTTATTCATCGAGACCTCAAGCTGG
GCAACCTTTTCTGAATGAAGATCTGGAGGTGAAAATAGGGGATTTTGGACTGGCAACCAAGTGAATATGACG
GGGAGAGGAAGAAGACCCTGTGTGGGACTCCTAATTACATAGCTCCCGAGGTGCTGAGCAAGAAAGGGCACAGTT
TCGAGGTGGATGTGTGGTCCATTGGGTGTATCATGTATACCTTGTTAGTGGGCAAACCACTTTTGAGACTTCTT
GCCTAAAAGAGACCTACCTCCGGATCAAGAAGAATGAATACAGTATTCCTAAGCACATCAACCCGTGGCCGCCT
CCCTCATCCAGAAGATGCTTCAGACAGATCCCACTGCCCGCCCAACCATTAACGAGCTGCTTAATGACGAGTTCT
TTACTTCTGGCTATATCCCTGCCCCTCTCCCCATCACCTGCCTGACCATTCCACCAAGGTTTTTCGATTGTCTCCA
GCAGCCTGGACCCAGCAACCGGAAGCCCCCTCACAGTCTCAATAAAGGCTTGGAGAACCCCTGCCTGAGCGTC
CCCCGGGAAAAAGAAGAACCAGTGGTTCGAGAGACAGGTGAGGTGGTCGACTGCCACCTCAGTGACATGCTGCAGC
AGCTGCACAGTGTCAATGCCTCCAAGCCCTCGGAGCGTGGGCTGGTCAGGCAAGAGGAGGCTGAGGATCCTGCCT
GCATCCCCATCTTCTGGGTGAGCAAGTGGGTGGACTATTGCGACAAGTACGGCCTTGGGTATCAGCTCTGTGATA
ACAGCGTGGGGGTGCTCTTCAATGACTCAACACGCCTCATCCTCTACAATGATGGTGACAGCCTGCAGTACATAG
AGCGTGACGGCACTGAGTCTACCTACCGTGAGTTCCCATCCCAACTCCTTGATGAAGAAGATCACCTCCTTA
AATATTTCCGCAATTACATGAGCGAGCACTTGCTGAAGGCAGGTGCCAATCAGCCGCGCGAAGGTGATGAGC
TCGCCCCGGCTGCCCTACCTACGGACCTGGTTCGCGACCCGCAGCGCCATCATCCTGCACCTCAGCAACGGCAGCG
TGCAGATCAACTTCTTCCAGGATCACACCAAGCTCATCTTGTGCCCACTGATGGCAGCCGTGACCTACATCGACG
AGAAGCGGGACTTCCGCACATACCGCTGAGTCTCCTGGAGGAGTACGGCTGCTGCAAGGAGCTGGCCAGCCGGC
TCCGCTACGCCCCGCACTATGGTGGACAAGCTGCTGAGCTCACGCTCGGCCAGCAACCGTCTCAAGGCCTCT**TAAT**
AGCTGCCCTCCCCCTCCGGACTGGTGCCCTCCTCACTCCCACCTGCATCTGGGGCCCATACTGGTTGGCTCCCGCG
GTGCCATGTCTGCAGTGTGCCCCCAGCCCCGGTGGCTGGGCAGAGCTGCATCATCCTTGAGGTGGGGGTGCT
GTGTAAGTTATTTTTGTACATGTTCCGGGTGTGGGTCTACAGCCTTGTCCTCCCTCAACCCACCATATG
AATTGTACAGAATATTTCTATTGAATTCGGAACGTCTCTTCTTGGCTTTATGCACATTAAACAGATGTGAATA
TTCAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 4443

MSAAVTAGKLARAPADPGKAGVPGVAAPGAPAAAPFAKEIPEVLVDPRSRRRYVRGRFLGKGGFAKCFEISDADT
KEVFAGKIVPKSLLLKPHQREKMSMEISIHRSIAHQHVVGFGFFEDNDFVFFVLELCRRRSLLELHKRRKALTE
PEARYYLQIVLGCQYLHRNRVIHRDLKLGNLFLNEDLEVKGIDFGLATKVEYDGERKKTLCGTPNYIAPEVLSK
KGHSFEVDVWSIGCIMYTLLVGKPPFETSCLKETYLRICKNEYSIPKHINPVAASLIQKMLQTDPTARPTINELL
NDEFFTSGYIPARLPITCLTIPPRFSIAPSSLDPSNRKPLTVLNKGLENPLPERPREKEEPVVRETGEVVDCHLS
DMLQQLHSVNASKPSEGLVRQEEAEDPACIPFWVSKWVDYSDKYGLGYQLCDNSVGVLFNDSTRLILYNDGDS
LQYIERDGTESYLTVSSHPSNLMKKITLLKYFRNYMSEHLLKAGANITPREGDELARLPYLRTWFRTRSAILHL
SNGSVQINFFQDHTKLILCPLMAAVTYIDEKRDFRTYRLSLLEEYGCKELASRLRYARTIMVDKLLSSRSASNRL
KAS

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FIGURE 4445

MELGELLYNKSEYIETASGNKVSRSVLCGSQNIVLNGKTIVMNDICIIRGDLANVRVGRHCVVKSRSVIRPPFKK
FSKGVAFFPLHIGDHVFI EEDCVVNAAQIGSYVHVGKNCVIGRRCVLKDCCKILDNTVLPPE TVVPPFTVFSGCP
GLFSGELPECTQELMIDVTKSYYQKFLPLTQV

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FIGURE 4446

AGTGCATCCTGGGTTGGCGTAGCCATGGCGTCTCGTGTCTTTTCAGCCTATGTCAGCCGCTGCCCGCGGCCTTT
GCGCCGCTGCCCCGGGTCCGGATGCTGGCCGTGGCCCGGCCTCTCAGCACTGCTCTCTGCTCCGCGGGGACCCAG
ACGAGGCTCGGGACTTTGCAGCCGGCCTTAGTGCTCGCGCAGGTTCTGGTAGAGTTACACAGTTGTGCCGCCAG
TATAGCGACATGCCTCCTTTGACGTTAGAGGGCATCCAGGACCGTGTTCTTTACGTATTGAACTCTATGACAAG
ATTGACCCAGAGAAGCTTTCAGTAAATTCTCATTTTATGAAAGACCTGGGCTTAGACAGTTTGGACCAAGTGGAG
ATTATCATGGCCATGGAAGACGAATTGGGTTTGAAATTCCTGATATAGATGCTGAAAAGTTAATGTGTCCACAA
GAAATTGTAGATTACATTGCAGATAAGAAAGATGTATATGAATTAAAGTATCAGACCCTTTGGCTTTGCTGAGAGA
GGACTCAGATGATAGTGACGAATGTCTGGCAGTGAGGACACATTTGGCATTCTTGCTGACTCTGACAGAGTGAT
TCTGATGGACTTGTATTTAAATTGTATGTGTTTTACTCTTTGAAAATAAATCTATAAAACCAA

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FIGURE 4447

MASRVLSAYVSRLPAAFAFLPRVRMLAVARPLSTALCSAGTQTRLGTLQPALVLAQVPGRVTQLCRQYSMPPLT
LEGIQDRVLYVLKLYDKIDPEKLSVNSHFMKDLGLDSLQVEIIMAMEDEFGFEIPDIDAEKLMCPQEIVDYIAD
KKDVYE

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FIGURE 4448

GTTTTCCATGTTGCCCAGGCTGGTCTCAAACCTCTGGGCTCAAGCAATCCTTCTGTCTCAGCCTCCCCAAGTAC
TGGGATTACAGGCATGTCCCACCATGCCCAGACTAATATTTACTTTTAAATCAGACTAAGATAGGGTTACTACTTG
AGTTGCTATGGCTCCAGCTGAAAGCCTGTGCAGTCATATCATGGGTAAACATTTGCTTTATGCTAAAAATATGGT
GGACCTGGCATTACAGCTATTACAAATCTCCTAAGGTGTCTCAGGTAGTGTATTAGTTACTTTTCATACTGCTAT
GAAGAAATACTCGAGACTGGGTAAATTTATAAAGGAAAAGAGGTTTAAATGTACTCACAGTTCCACAAGGCTGGGGA
GGCCTCAGAAATCATGGTGGAAGGCAAAGAAGGAGCAAAGGTACGTCTTACATGGCTGCAGGAAAGAGAGCACGTG
CAGGGAAACTGCCCTTTATAAAACCATCAGATTTAGTGAGATGTATTCACATCACAAGAACAGTATGGGAAAAA
CCTGCCCCCATGATTTGATTACCTCCTACCAGGTCCCTCCCACGACACATGGGGATTATGGGAACACAAATTCAA
GATGAAATTTGGGTGGGGACGCAGCCAAACCATATCGGGTAGCAACAACCTAGGGTCAGTTTTGCAGGTGGTAAA
GCCATTTACCAAGATAGTTGTAGGTAAAGAAGGGCAGATTTATTAGAGAAATTATGAAAATATGTTGCAGTGGGC
AGCTCAGCAGAGAAGGGGCTACCTGCAAAGAGGCAGGGGCTGGAGGAAAGTTTTATAGGGTCCTGCTGAAGGGTG
CTACGTGTGGAATGAGGTCAATTGTGCCCCGAGGTTGTTTGTGATTAGCTGTCTCTAACAATTGTTTCATACAGTAA
TTGTTCAATTATTGTTCTCAACITGGGGCTCTCCCCAACCTGGGGACCCCTTCCTTATTGTTGCTTACTTATCAGGA
CTCCACATAAGGGTGTGGAACTTCATTTCATTATCTTCAACACAAATTGTAGGTAGCCTGTTTTTTAAAAAA
TTTATTCAACAAATATTTAGTCCAAGCCACTGTTACTTATTACCCTCTCTACTTCTGTATGGACTTTTAACTATC
TCTGACACTATTCACTATTCTTCCACATTCTCTATTATTTATACCTATGGTAAAATTTGCCAGTTTGACCATGCA
ACTAATACTCACAGGGAATATATAGAGTCTAGAAGAAAATATACAGGTCCCTTAGAGGCTGCTCTGCCAACAAAAC
CATAATGCAGGAACAAACATCACAACATATGCCAAATAATCAATCCTACAATGTCCAAAATTTTACTTTAAACTG
GAATTTCCAGACTTCCTTTCTGCATTAACCAGTTTAACTAGATAGTAATGAAATATCCCTCTACTTTATGCTGTG
ATAGTTTATTTATTTATTTGAGAGTTTATTTATTTATTTTGGAGACAACAGAGCGAGACTCCGTCTCA

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FIGURE 4449

TCCTCTCGGCGTTTCCGCTGTCAGGGCCTGCGGTGTGACTCGCGGGCTCAGCTGGTCCGGCCGTAGCACCTCCG
CGCCGTCGCCATGTCGCGGTTTTTACCACCGGTTTCGGACAGCGAGTCCGAGTCGTCCTTGTCCGGGGAGGAGCT
CGTCACCAAACCTGTCGGAGGCAACTATGGCAAACAGCCATTGTTGCTGAGCGAGGATGAAGAAGATACCAAGAG
AGTTGTCCGCAGTGCCAAGGACAAGAGGTTTGAGGAGCTGACCAACCTTATCCGGACCATCCGTAATGCCATGAA
GATTCGTGATGTCACCAAGTGCCTGGAAGAGTTTGAGCTCCTGGGAAAAGCATATGGGAAGGCCAAAAGCATTGT
GGACAAAGAAGGTGTCCCCCGTTCTATATCCGCATCCTGGCTGACCTAGAGGACTATCTTAATGAGCTTTGGGA
AGATAAGGAAGGGAAGAAGAAGATGAACAAGAACAATGCCAAGGCTCTGAGCACCTTGCGTCAGAAGATCCGAAA
ATACAACCGTGATTTCGAGTCCCATATCACAAAGCTACAAGCAGAACCCCGAGCAGTCTGCGGATGAAGATGCTGA
GAAAAATGAGGAGGATTGAGAAGGCTCTTCAGATGAGGATGAGGATGAGGACGGAGTCAGTGTGCAACTTTCTT
GAAGAAGAAATCAGAAGCTCCTTCTGGGGAGAGTCGCAAGTTCCTCAAAAAGATGGATGATGAAGATGAGGACTC
AGAAGATTCCGAAGATGATGAAGACTGGGACACAGGTTCCACATCTTCCGATTCCGACTCAGAGGAGGAAGAAGG
GAAACAAACCGCGCTGGCCTCAAGATTTCTTAAAAAGGCACCCACCACAGATGAGGACAAGAAGGCAGCCGAGAA
GAAACGGGAGGACAAAGCTAAGAAGAAGCACGACAGGAAAATCCAAGCGCTGGATGAGGAGGAGGAGGACAATGA
AGGCGGGGAGTGGGAAAGGGTCCGGGGCGGAGTGCCGTTGGTTAAGGAGAAGCCAAAATGTTTGCCAAGGGAAC
TGAGATCACCCATGCTGTTGTTATCAAGAACTGAATGAGATCCTACAGGCACGAGGCAAGAAGGGAAGTATCG
TGCTGCCCAGATTGAGCTGCTGCAACTGCTGGTTCAGATTGCAGCGGAAAACAACCTGGGAGAGGGCGTCATTGT
CAAGATCAAGTTCAATATCATCGCCTCTCTCTATGACTACAACCCCAACCTGGCAACCTACATGAAGCCAGAGAT
GTGGGGGAAGTGCTGGACTGCATCAATGAGCTGATGGATATCCTGTTTGCAAATCCCAACATTTTTGTGGAGA
GAATATTCTGGAAGAGAGTGAGAACCTGCACAACGCTGACCAGCCACTGCGTGTCCGTGTCATCCTAACTCT
GGTGGAACGAATGGATGAAGAATTTACCAAAATAATGCAAAATACTGACCCCTCACTCCCAAGAGTACGTGGAGCA
CTTGAAGGATGAGGCCCAGGTGTGTGCCATCATCGAGCGTGTGCAGCGCTACCTGGAGGAGAAGGGCACTACCGA
GGAGGTCTGCCGCATCTACCTGCTGCGCATCTGCACACCTACTACAAGTTTGATTACAAGGCCCATCAGCGACA
GCTGACCCCGCCTGAGGGCTCCTCAAAGTCTGAGCAAGACCAGGAGCAGGAGAAGGTGGAGCGGCGCCGTCAGGTCCC
GATGGAGAGACTGTGCAAGTACATCTACGCCAAGGACCGCACAGACCGGATCCGCACATGTGCCATCCTCTGCCA
CATCTACCACCATGCTCTGCACTCGCGCTGGTACCAGGCCGCGACCTCATGCTCATGAGCCACTTGCAAGGACAA
CATTACAGCATGCAGACCCGCCAGTGCAGATCCTTTACAACCGCACCATGGTGCAGCTGGGCATCTGTGCCCTCCG
CCAAGGCCTGACCAAGGACGCACACAACGCCCTGCTGGACATCCAGTCGAGTGGCCGAGCCAAGGAGCTTCTGGG
CCAGGGCCTGCTGCTGCGCAGCCTGCAGGAGCGCAACCAGGAGCAGGAGAAGGTGGAGCGGCGCCGTCAGGTCCC
CTTCCACCTGCACATCAACCTGGAGCTGCTGGAGTGTGTCTACCTGGTGTCTGCCATGCTCCTGGAGATCCCCTA
CATGGCCGCCCATGAGAGCGATGCCCCGCCGACGCATGATCAGCAAGCAGTTCACCACCAGCTGCGCGTGGGCGA
GCGACAGCCCCCTGCTGGGTCCCCCTGAGTCCATGCGGGAACATGTGGTCTGCTGCCATGCTCCTGGAGATCCCCTA
TGACTGGAAGACCTGTACAGTTTTATCATCAATGAGAAGATGAATGGGAAAGTGTGGGACCTTTTCCCCGAGGC
TGACAAAGTCCGCACCATGCTGGTTAGGAAGATCCAGGAAGAGTCACTGAGGACCTACCTCTTACCTACAGCAG
TGTCTATGACTCCATCAGCATGGAGACGCTGTGAGACATGTTTGAGCTGGATCTGCCCCTGTGCACTCCATCAT
CAGCAAAATGATCATTAAATGAGGAGCTGATGGCCTCCCTGGACCAGCCAACACAGACAGTGGTGTGACCCGCAC
TGAGCCCACTGCCAGCAGAACCTGGCTCTGCAGCTGGCCGAGAAGCTGGGCAGCCTGGTGGAGAACAACGAACG
GGTGTGTTGACCACAAGCAGGGCACCTACGGGGGCTACTTCCGAGACCAGAAGGACGGCTACCGCAAAAACGAGGG
CTACATGCGCCGCGTGGCTACCGCCAGCAGCAGTCTCAGACGGCCTACTGAGCTCTCCACTCTGTTTCCGCGCT
GGGCCATCCAACCTTGAAGTCTTAAACCACACCTCAGTCACTAAAGGTCTGTTTAAAGTTGTTCTGGTTGATTGC
TTGTTGCCACAAAGGTGTGTTGAGCCCATTCATTTGCTGATTATACTTCTGAGCTGCTACCACATGACAGACACA
AGGCTCAGATGAAGAGGTGAATTGAAC

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FIGURE 4450

MSRFFTTGSDSESESSLGEEELVTKPVGGNYGKQPLLLSEDEEDTKRVVRSADKDRFEELTNLIRTIRNAMKIRD
VTKCLEEFELLGKAYGKAKSIVDKEGVPRFYIRILADLEDYLNELWEDKEGKKKMKNNAKALSTLRQKIRKYNR
DFESHITSYKQNPESADEDAEKNEEDSEGSSDEDEDEDGVSAATFLKKKSEAPSGESRKFLKKMDEDEDSEDS
EDDEDWDTGSTSSDSDSEEEEGQTALASRFLKKAPTDEDKKAEEKKREDKAKKKHDRKSKRLDEEEDNEGGE
WERVRGGVPLVKEKPKMFAKGTEITHAVVIKKLNEILQARGKKGTDRAAQIELLQLLVQIAAENNLGEGVIVKIK
FNI IASLYDYNPNLATYMKPEMWGKCLDCINELMDILFANPNIFVGENILEESENLHNADQPLRVGCILTVER
MDEEFTKIMQNTDPHSQEYVEHLKDEAQVCAI IERVQRYLEEKGTTEEVCRIYLLRILHTYYKFDYKAHQRLTP
PEGSSKSEQDQAENEGEDSAVLMERLCKYIYAKDRTDRITCAILCHIYHHALHSRWYQARDLMLMSHLQDNIQH
ADPPVQILYNRTMVQLGICAFRQGLTKDAHNALLDIQSSGRAKELLGQGLLLRSLQERNQEKEKVERRRQVPFHL
HINLELLECVYLVSAMLEIPYMAAHESDARRRMI SKQFHHQLRVGERQPLGPPEMREHVVAASKAMKMGDWK
TCHSFI INEKMNGKVWDLFPEADKVRTMLVRKIQEESLRTYLFYSSVYDSISMETLSDMFELDLPVHSIISKM
IINEELMASLDQPTQTVVMHRTEPTAQQNLALQLAEKLGSLVENNERVFDHKQGTYYGGYFRDQKDGyrkNEGYMR
RGGYRQQQSQTAY

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FIGURE 4451

GTGCATGCCGTGGGTCTGACGGCTTGAGTAGCGCTAGGGAGAATCCCTGCAGGTAATATTTGACTTTTGCTTCAT
ATTAATCTGAGTGGAAAATAAAAGGGCCCTCTTCTCCTCTCGCTTCCCTGCCGGGCAGGCGCCATGCGCGGAAGCC
TCGGCGACGGGCGCCTGCGGAGAGGCGATGGCAGCGGGCGGAAGGCTCCTCGGGCCCCGGCGGGCTTGACTCTGGGC
CGGAGCTTCTCGAACTACCGGCCCTTCGAGCCCCAGGCGTTGGGCTCAGCCGAGCTGGCGGCTGACGGGCTTC
TCCGGCATGAAGGGCTGAGGCTGCAAGGTCCCCGAGGAGGCGCTGCTCAAACCTCCTGGCGGGACTGACGCGGCCG
GACGTGCGGCCCCCGCTGGGCGGGGCTGGTGGGTGGCCAGGAAGAGGCGTCCAGGAAGCCGGCCTGCCGGCA
GGAGCGGGCCCCAGCCCCACCTTTCAGCCCTGGGCATCGGGATGGACTCCTGCGTCATCCCCCTGAGGCACGGG
GGCCTGTCACTGGTGCAGACCACGGACTTCTTTTACCCCTTGGTAGAAGATCCCTACATGATGGGGCGCATAGCT
TGTGCCAACGTGCTGAGTGACCTCTACGCCATGGGGATTACTGAGTGTGACAACATGTTGATGTTACTCAGCGTC
AGCCAGAGTATGAGTGAGGAGGAACGCGAAAAGGTAACGCCACTCATGGTCAAAGGCTTTCGGGATGCGGCTGAG
GAAGGAGGGACGGCAGTGACCGGTGGGCAAACGGTGGTCAACCCCTGGATTATAATCGGTGGAGTTGCCACTGTA
GTATGCCAACCAAATGAGTTCATAATGCCGGACAGCGCGCTCGTTGGGGACGTGCTGGTGTAAACCAAACCGTTA
GGAACCCAGGTTGCTGTCAATGCCACCAATGGCTGGATAATCCTGAAAGATGGAATAAAGTAAAGATGGTGGTC
TCCAGAGAAGAGGTGGAGCTGGCCTATCAGGAAGCCATGTTCAATATGGCTACCCTCAACAGAACTGCTGCAGGT
TTAATGCACACATTTAATGCCCATGCGGCCACAGATATCACAGGCTTTGGCATTCTAGGACACTCCCAGAACCTT
GCAAAACAACAAAGAAATGAAGTGTCTTTGTTATTCTATAATCTGCCAATAATTGCCAAGATGGCTGCCGTCAGC
AAGGCCAGTGGACGGTTTGGGCTTCTTCAAGGAACCTCAGCTGAAACCTCTGGGGGATTACTGATTTGTCTGCCA
AGAGAACAGGCGGCTCGCTTTTGTCTGAAATCAAATCCTCCAAGTACGGAGAGGGTCACCAAGCGTGGATCGTT
GGCATTGTGGAAGGAAACCGAACGGCCCGGATCATTGACAAGCCGCGAGTTATTGAAGTCCGCTCGTGGG
GCCACAGCTGCTGTTCTTGTCTCTGACAGTTCAAATGCCTCCTCTGAGCCTAGCTCGTGAGATGAAAGAACAGAA
GTTGTTTGGACCTTAGAGCCATTGTCCACAATCACGGATGGTTCTCAAGAGTTGATTGTAAGAAATTTCCAAAGA
AGGCTGCCTGCATAGTGGTTCCGGCTGCCCTTCTAGGTGATTGGAATCAGCCCATCTAAAGCAGTCTTTATATG
CATTCGAGGCCAGAGTAACATTTTGAACCTTGGGGGGATATTTGTTCACTACTTGGGTAGAAGAGGAGCAAAAA
TACTTCTGTTTTCTCTTGCCAAAGTAAGATGAAGCTATTCCAGGTTGAGGGATTTTCTTTGCACGGGGTTGATT
AATTTCTGCACAGGGAGTGAGATTATTAAAGTAACACACACACAAAGTAAATTGCAAAATGAAAAAATTAGAAG
CAAATGAGTTTTGGACCAATATTGTTGATAAATCTAAATTGTTAAGAGAGATCTTATAATGCAACATCAAATTCT
TTATTCAATTTTACTGAAGTACTGGCTCTTCTGCTCTGGACAAGAATTGAGCAACTTGTCTGATGACTGGGAA
AGGAGGACCTGCAACCATCTGACTTGGTCTCTGTTAATGACGTCTCTCCCTCTAAACCCCATTAAGGACTGGGAG
AGGCAGAGCAAGCCTCAGAGCCCAGGCCTCAGTGGTCATTAAGATGTTAAGTCTTTTGGCGCAGATTCTGTTGA
TTTGATCAATAAAGAGTAATTTCTTGCTAAATAAATAAAGAAACCTTGTGAAAACTAAAAAAAAAAAAAAAA
AAA

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FIGURE 4452

GGSLGDGRLRRGDGSGGRLLGPGGLDSGPELLELPALRAPGVGPQPELAADGLLRHEGLRGCKVPQEALLKLLAG
LTRPDVRPPLGRGLVGGQEEASQEAGLPAGAGPSPTFPALGIGMDSCVIPLRHGGLSLVQTDDFFYPPLVEDPYMM
GRIACANVLSPLYAMGITECDNMLMLLSVSQSMSEEEEREKVTPLMVKGFRDAAEEGGTAVTGGQTVVNPWIIIGG
VATVVCQPNEFIMPDSAVVGDVLVLTPLGTQVAVNAHQWLDNPERWNKVKMVVSREEVELAYQEAMFNMATLNR
TAAGLMHTFNAAATDITGFGILGHSQNLAKQQRNEVSFVIHNLPIIAKMAAVSKASGRFGLLQGTSAETSGGLL
ICLPREQAARFCSEIKSSKYGEGHQAWIVGIVEKGNRTARIIDKPRVIEVLPRGATAAVLAPDSSNASSEPPSS

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FIGURE 4453A

CCTCTTTCACCCTGTCTAGGTTGCCAGCAAATCCCACGGGCCTCCTGACGCTGCCCCCTGGGGCCACAGGTCCCTC
GAGTGCTGGAAGGATGAAGGATTCTGTCATCACTGTGATGGCCATGGCGCTGCTGTCTGGGTTCCTTTTCTTCGC
GCCGGCCTCGAGCTACAACCTGGACGTGCGGGGCGCGCGGAGCTTCTCCCCACCGCGCGCCGGGAGGCACCTTGG
ATACCGCGTCTCTGAGGTGCGAAACGGGGTCATCGTGGGAGCTCCAGGGGAGGGGAACAGCACAGGAAGCCTCTA
TCAGTGCCAGTCGGGCACAGGACACTGCCTGCCAGTCACCCTGAGAGGTTCCAACCTATACCTCCAAGTACTTGGG
AATGACCTTGGCAACAGACCCACAGATGGAAGCATTTTGGCCTGTGACCCTGGGCTGTCTCGAACGTGTGACCA
GAACACCTATCTGAGTGGCCTGTGTTACCTCTTCCGCCAGAATCTGCAGGGTCCCATGCTGCAGGGGCGCCCTGG
TTTTCAGGAATGTATCAAGGGCAACGTAGACCTGGTATTTCTGTTTGATGGTTCGATGAGCTTGCAGCCAGATGA
ATTTCAAAAAATCTGGACTTCATGAAGGATGTGATGAAGAACTCAGCAACACTTCGTACCAGTTTGCTGCTGT
TCAGTTTTCACAAGCTACAAAACAGAATTTGATTTCTCAGATTATGTTAAATGGAAGGACCCTGATGCTCTGCT
GAAGCATGTAAAGCACATGTTGCTGTTGACCAATACCTTTGGTGCCATCAATTATGTCGCGACAGAGGTGTTCCG
GGAGGAGCTGGGGGCCCCGCCAGATGCCACCAAAGTGCTTATCATCATCACGGATGGGGAGGCCACTGACAGTGG
CAACATCGATGCGGCCAAAGACATCATCCGCTACATCATCGGGATTGGAAGCATTTTCAGACCAAGGAGAGTCA
GGAGACCCCTCCACAAATTTGCATCAAAACCCGCGAGCGAGTTTGTGAAAATCTGGACACATTTGAGAAGCTGAA
AGATCTATTCACTGAGCTGCAGAAGAAGATCTATGTCAATTGAGGGCACAAGCAAACAGGACCTGACTTCCTTCAA
CATGGAGCTGTCTCCAGCGGCATCAGTGCTGACCTCAGCAGGGGCCATGCAGTCGTGGGGGACGTAGGAGCCAA
GGACTGGGCTGGGGGCTTTCTTGACCTGAAGGCAGACCTGCAGGATGACACATTTATTGGGAATGAACCATTGAC
ACCAGAAGTGAGAGCAGGCTATTTGGGTTACACCGTGACCTGGCTGCCCTCCCGGCAAAAGACTTCGTTGCTGGC
CTCGGGAGCCCTCGATACCAGCACATGGGCCGAGTGCTGCTGTTCCAAGAGCCACAGGGCGGAGGACACTGGAG
CCAGGTCCAGACAATCCATGGGACCCAGATTGGCTCTTATTTCCGTGGGGAGCTGTGTGGCGTCGACGTGGACCA
AGATGGGGAGACAGAGCTGCTGATTGGTGCCCCACTGTTCTATGGGGAGCAGAGAGGAGCCGGGTGTTTAT
CTACCAGAGAAGACAGTTGGGGTTTGAAGAAGTCTCAGAGCTGCAGGGGGACCCCGGTACCCACTCGGGCGGTT
TGGAGAAGCCATCACTGCTCTGACAGACATCAACGGCGATGGGCTGGTAGACGTGGCTGTGGGGCCCCCTCTGGA
GGAGCAGGGGGCTGTGTACATCTTCAATGGGAGGCACGGGGGCTTAGTCCCCAGCCAAGTCAGCGGATAGAAGG
GACCCAAGTGCTCTCAGGAATTCAGTGGTTTGGACGCTCCATCCATGGGGTGAAGGACCTTGAAGGGGATGGCTT
GGCAGATGTGGCTGTGGGGCTGAGAGCCAGATGATCGTGCTGAGCTCCCGGCCGTGGTGATATGGTCACCTT
GATGTCTTCTCTCCAGCTGAGATCCCAGTGATGAAGTGGAGTGCTCCTATTCAACCAGTAACAAGATGAAAGA
AGGAGTTAATATCACAATCTGTTTCCAGATCAAGTCTCTCATCCCCAGTTCCAAGGCCGCTGGTTGCCAATCT
CACTTACACTCTGCAGCTGGATGGCCACCGGACCAGAAGACGGGGTTGTTCCAGAGGAGGACATGCAACTCAG
AAGGAATATAGCTGTACCACCAGCATGTCTGCACTGACTTCTCATTTCATTTCCCGGTATGTGTTCAAGACCT
CATCTCCCCCATCAATGTTTCCCTGAATTTCTCTCTTTGGGAGGAGGAAGGGACACCGAGGGACCAAAGGGCGCA
GGGCAAGGACATACCGCCCATCCTGAGACCCTCCCTGCACTCGGAAACCTGGGAGATCCCTTTTGAGAAGAACTG
TGGGGAGGACAAGAAGTGTGAGGCAAACCTGAGAGTGTCTTCTCTCTGCAAGATCCAGAGCCCTGCGTCTAAC
TGCTTTTGCCAGCCTCTCTGTGGAGCTGAGCCTGAGTAACTTGGAGAAGATGCTTACTGGGTCCAGCTGGACCT
GCACTTCCCCCGGACTCTCCTTCCGCAAGGTGGAGATGCTGAAGCCCCATAGCCAGATACCTGTGAGCTGCGA
GGAGCTTCTGAAGAGTCCAGGCTTCTGTCCAGGGCATTATCTTGCAATGTGAGCTCTCCCATCTTCAAAGCAGG
CCACTCGGTTGCTCTGCAGATGATGTTTAATACACTGGTAAACAGCTCCTGGGGGACTCGGTTGAATTGCACGC
CAATGTGACCTGTAACAATGAGGACTCAGACCTCCTGGAGGACAACTCAGCCACTACCATCATCCCCATCCTGTA
CCCCATCAACATCCTCATCCAGGACCAAGAAGACTCCACACTCTATGTGAGTTTACCCCCAAAGGCCCAAGAT
CCACCAAGTCAAGCACATGTACCAGGTGAGGATCCAGCCTTCCATCCACGACCACAACATACCCACCCTGGAGGC
TGTTGGTTGGGGTGCCACAGCCTCCCAGCGAGGGGCCCATCACACACCAGTGGAGCGTGAGATGGAGCCTCCCGT
GCCCTGCCACTATGAGGATCTGGAGAGGCTCCCGGATGCAGCTGAGCCTTGCTCTCCCGGAGCCCTGTTCCGCTG
CCCTGTTGTCTTCAGGCAGGAGATCCTCGTCCAAGTGATCGGGAATCTGGAGCTGGTGGGAGAGATCGAGGCCTC
TTCCATGTTTCAGCCTCTGCAGTCCCTCTCCATCTCCTTCAACAGCAGCAAGCATTTCCACCTCTATGGCAGCAA
CGCCTCCCTGGCCCAGGTTGTATGAAGGTTGACGTGGTGTATGAGAAGCAGATGCTCTACCTCTACGTGCTGAG
CGGCATCGGGGGGCTGCTGCTGCTGCTCATTTTCATAGTGCTGTACAAGGTTGGTTTCTTCAAACGGAACCT
GAAGGAGAAGATGGAGGCTGGCAGAGGTGTCCCGAATGGAATCCCTGCAGAAGACTCTGAGCAGCTGGCATCTGG
GCAAGAGGCTGGGGATCCCGGCTGCCGCTGAAGCCCCCTCCATGAGAAGGACTCTGAGAGTGGTGGTGGCAAGGACTG

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FIGURE 4453B

AGTCCAGGCCTGTGAGGTGCAGAGTGCCCAGAACTGGACTCAGGATGCCCAGGGCCACTCTGCCTCTGCCTGCAT
TCTGCCGTGTGCCCTCGGGCGAGTCACTGCCTCTCCCTGGCCCTCAGTTTCCCTATCTCGAACATGGAACCTCATT
CCTGCCTGTCTCCTTTGCAGGCTCATAGGGAAGACCTGCTGAGGGACCAGCCAAGAGGGCTGCAAAAGTGAGGGC
TTGTCATTACCAGACGGTTCACCAGCCTCTCTTGGTTTCCTTCCTTGGAAGAGAATGTCTGATCTAAATGTGGAG
AAACTGTAGTCTCAGGACCTAGGGATGTTCTGGCCCTCACCCCTGCCCTGGGATGTCCACAGATGCCTCCACCCC
CCAGAACCTGTCTTGCACACTCCCCTGCACTGGAGTCCAGTCTCTTCTGCTGGCAGAAAGCAAATGTGACCTGT
GTCACTACGTGACTGTGGCACACGCCTTGTTCTTGGCCAAAGACCAAATTCCTTGGCATGCCTTCCAGCACCCCTG
CAAAATGAGACCCCTCGTGGCCTTCCCCAGCCTCTTCTAGAGCCGTGATGCCTCCCTGTGGAAGCTCTGGTGACAC
CAGCCTTTCTCCCAGGCCAGGCTCCTTCTGTCTTCTTGCATTACCCAGACAGCTCCCTCTGCCTGAACCTTCC
ATCTCGCCACCCCTCCTTCTTGACCAGCAGATCCCAGCTCACGTACACTTGGTTGGGTCTCACATCTTTCAC
ACTTCCACCAGCCTGCCTACTCCCTCAAAGCACACGTATGTTTCTTCCATCCGGCAGCCTGGATGTTTTTCCC
TGTTTAATGATTGACGTACTTAGCAGCTATCTCTCAGTGAAGTGTGAGGGTAAAGGCTATACTTGTCTTGTTTAC
CTTGGGATGATGCCTCATGATATGTCAGGGCGTGGGACATCTAGTAGGTGCTTGACATAATTTCACTGAATTAAT
GACAGAGCCAGTGGGAAGATACAGAAAAAGAGGGGCTGGGCTGGGCGCGGTGGTTACGCCTGTAATCCCAGCAC
TTTGGGAGGCCAAGGAGGTGGATCACCTGAGGTGAGGAGTTAGAGGCCAGCCTGGCGAAACCCCATCTCTACTA
AAAATACAAAATCCAGGCGTGGTGGCACACACCTGTAGTCCCAGCTACTCAGGAGGTTGAGGTAGGAGAAATTGCT
TGAACCTGGGAGGTGGAGGTTGCAGTGAGCCAAGATTGCCCATTCGACTCCAGCCTGGGCAACACAGCGAGACT
CCGTCTCAAGGAAAAAATAAAAATAAAAAGCGGGCACGGGCCCGTGACATCCCCACCCTTGGAGGCTGTCTTCTC
AGGCTCTGCCCTGCCCTAGCTCCACACCCTCTCCAGGACCCATCACGCCTGTGCAGTGGCCCCCACAGAAAGAC
TGAGCTCAAGGTGGGAACCACGTCTGCTAACTTGGAGCCCCAGTGCCAAGCACAGTGCCTGCATGTATTTATCCA
ATAAATGTGAAATTCTGTCC

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FIGURE 4454

CGCGCTGGAGAGGCGCGGGGTCAAGACGTCCGGCCTCGGGGGCCCGGGCTGGGCCGCCGAGTCCCCTGGGCGGCG
CTGAGCGGGCGGGAGGCGGGGGGCCCGCGGCTCGGGGCAACCGAGGCCGGGTGCGGGGATCGGCCGCCATCGCCGC
CGCCGCTGCACTGGGAGCCCGCGGGGATGGAGCGGGAGGCGTTGCCGTGGGGCCTCGAGCCCCAGGATGTGCAGA
GTTCTGACGAATGAGGAGCCCCGAAGGGTACCTCAGAGGCAACATGAGTGAGAAATGAGGAAGAGGAAATTTCTC
AGCAAGAAGGCAGTGGGGACTATGAAGTCGAAGAGATACCATTTGGGCTTGAACCCAGAGCCCTGGGTTTGAGC
CACAAAGCCCAGAGTTTGAACCCCAAAGCCCCAGATTTGAGCCTGAAAGCCCCGGGGTTTGAAGTCCCAGGCCCTG
GGCTTGTGCCCCAAGCCCTGAGTTTGCACCCAGAAGCCCTGAATCAGATTCTCAGAGCCCTGAGTTTGAATCCC
AGAGCCCTAGGTATGAACCCCAAAGCCCTGGCTATGAACCTCGGAGCCCCGGGTATGAACCCCGGAGCCCTGGCT
ATGAATCTGAGAGCTCTAGATATGAATCCCAAGAACTGAGCTCAAAACCCAAAGCCCAGAATTTGAAGCTCAAA
GTTCCAAATTCAGGAAGGTGCGGAGATGCTTCTGAACCCGACGAAAAGAGTCCTTTGAATATCTCCGTAGGAG
TTCACCCCTGGACTCCTTCACTCAGGGGTTTGGGGAGCAGCCACAGGGGACCTGCCCATAGGGCCACCTTTTG
AGATGCCACAGGGGCCCTGCTGTCTACACCGCAGTTTGAGATGCTTCAGAAATCCCCTGGGTCTCAGAGAGCCC
TTCGAGGTCCAGGTGCGCGGGGTGGCCGGGCCAGGGGTGGGCAGGGCCCTCGGCCTAACATCTGCGGCATCTGCG
GGAAGAGCTTCGGGCGGGGCTCCACCCTGATCCAGCACCAGCGCATCCACACCGGTGAGAAGCCCTACAAATGTG
AGGTCTGCAGCAAGGCCTTCTCCAGAGCTCTGACCTCATCAAAACACAGCGCACCCACACTGGCGAGCGGCCCT
ACAAATGTCCCCGTTGCGGCAAGGCCTTCGCCGACAGCTCTTACCTGCTTCGCCACCAGCGCACTCACTCTGGCC
AGAAGCCCTACAAGTGCCACATTGTGGCAAGGCCTTCGGCGACAGCTCCTACCTCCTGCGACACCAGCGCACCC
ACAGCCACGAGCGGCCCTACAGCTGCACCGAGTGCGGCAAGTGCTATAGCCAGAATCGTCCCTGCGCAGCCATC
AGAGGGTGCACACCGGTACAGAGCCCTTCAGCTGTGGCATCTGCGGCAAGAGCTTCTCCAGCGGTGCGCCCTTA
TCCCCCATGCCCCGACGCCACGCCCGGGAGAAGCCCTTCAAGTGCCCTGAGTGCGGCAAGCGCTTTGGCCAGAGCT
CGGTGCTGGCCATCCACGCCCGCACCCACCTGCCAGGCCGCACCTACAGCTGCCCCGACTGCGGCAAGACCTTCA
ATCGCTCCTCCACTCTCATCCAGCACCAGCGCTCCACACGGGCGAGCGGCCCTACAGGTGCGCCGTGTGCGGCA
AGGGCTTCTGCGGCTCCTCCACGCTTCTGCAGCATCACGGGTCCACAGTGCGGAGCGGCCCTTACAAGTGCGATG
ACTGCGGAAAGGCCTTCTCCAGAGCTCCGACCTCATCCGCCACCAGCGGACCCACGCGGCGGGCCGGCGCTGAC
CTGGGGCCCCAGCAGGGGTGGGAGGTGTGGGCAGAAGATAAGGGGCCAGGGAGCTAGAGGAACCTTTAGGGAGGA
TAGTGGAAGAAGCCGAGGAGAATGGAGGAGCTGAGGATGCTGGAAGAAGAGAACCAGGGTGGAGGAAGTGACATG
CCCTGGAGACTTGTGGGAAGTGGGTGGAGGGAGGCCAGGCCGGCAGCGGGAGGCCCTGGGAGAAATGGAGAGAG
GTCAGCGGAGGGCTGGCCTCAGCCGCGGCTCCTTGGTGGGTGCTGGCTGGCAACTGCTAGAGCAGGGAGGGGG
GAGGGCAGGGGATTACCTAATTAGAGTGGGTAGCTTAGATTGGTAGCTGCTGAACTCTCGTTGAGTCAGGAGC
GGGTAAAAGGTAGGTGGGTGGGAGTGGGGCCCCGGGTGGGGCCTGGGCCTCTGCGTGCAAACCCAGCCTCC
CTCTTCTTCTCAGGCTTTGGAGCCCTGAGTTTGAAGTTCAATAAAAACCTTTATGTGGTAAAAAAAAAAAAAA

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FIGURE 4455

MRSPEGYLRGNMSENEEEEEISQQEGSGDYEVEEIPFGLPEQSPGFEPQSPEFEPQSPRFEPESPGFESRSPGLVP
PSPEFAPRSPESDSQSPEFESQSPRYEPQSPGYEPRSPGYEPRSPGYESESRYESQNTLKTQSPEFEAQSSKF
QEGAEMLLNPDEKSPLNISVGVHPLDSFTQGFGEQPTGDLPIGPPFEMPTGALLSTPQFEMLQNPLGLTGALRGP
GRRGGRARGGQGRPNICGICGKSFGRGSTLIQHQRHTGKPYKCEVCSKAFSQSSDLIKHQRHTHTGERPYKCP
RCGKAFADSSYLLRHQRTHSGQKPYKCPHCGKAFGDSSYLLRHQRTHSHERPYSCTECGKCYSQNSSLRSHQRVH
TGQRPFSCGICGKSFSQRSALIPHARSHAREKPFKCPECGKRFGQSSVLAIHARTHLPGRTYSCPDGKTFNRSS
TLIQHQRSHTGERPYRCAVCGKGFCRSSTLLQHHRVHSGERPYKCDDCGKAFSQSSDLIRHQRTHAAGRR

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FIGURE 4456

GGCACGAGGCTTTCTCGGGCGCAGGAGGTTCCGCAGGCCAGGCCAGGCCAGGGGAGGCAGCCGATCCGTCGTCTG
GGGTTGACAGTTACCATGCGCGCCGCTCTGGCCCCGCTCCCTCCCCGGGACCCAAACGGGGCCGGACCCGAGTGG
AGGGAGCCGGGGGCTGTGAGCTTCGCGGACGTGGCCGTGTACTTCTGCCGGGAGGAGTGGGGCTGCTTGCGGCCA
GCGCAGAGGGCCCTGTACCGGGACGTGATGCGGGAGACCTACGGCCACCTGAGCGCTCTCGGAATCGGAGGCAAC
AAGCCAGCTCTCATCTCCTGGGTGGAGGAGGAGGCCGAACCTGTGGGGTCCGGCTGCCAGGATCCGGAGGTGGCG
AAATGTCAGACACAAACGGACCCAGCAGATTCAGAAACAAGAAAAAGGAAAGACAAAGGGAAGGGACGGGAGCC
CTGGAGAAAGCCGACCTGTGGCCGCGGGTCTCCTGGGCTGAAGTCTCCCCAAGCCCCCTCGGCCGGGCCCCCT
TATGGTTGGGAGCAGCTGTCCAAGGCACCGCACCGGGGACGCCCCCTCCCTCTGTGCCACCCCCCTGTCCCCGA
GCTGACCAGCGTCATGGCTGTCTACGTGTGCGGGAAGAGCTTTGCCTGGCGCTCCACACTGGTGGAGCACGTCTAC
AGTCACACTGGCGAGAAGCCCTTCCACTGCACTGACTGCGGCAAGGGCTTCGGCCACGCTTCCTCCCTGAGCAAA
CACCGGGCCATCCATCGTGGGGAGCGGCCCCACCGCTGTCTGGAGTGTGGCCGGGCCTTCACGCAGCGCTCGGCG
CTGACTTCGCACCTGCGCGTCCACACCGGCGAGAAACCTATGGCTGCGCCGACTGTGGCCGCGCTTCAGCCAG
AGCTCTGCCCCCTTACCAGCACCGGCGCGTGCACAGCGGCGAGACCCCCCTCCCTGCCCCGACTGTGGCCGCGCC
TTCGCCTACCCCTCGGACCTGCGGCGCCACGTGCGCACCCACACCGGCGAGAACCCCTACCCGTGCCCGGACTGC
GGGCGCTGCTTCCGCCAGAGCTCGGAGATGGCAGTCCACAGGCGCACCCACAGCGGCGAGAAGCCCTACCCCTGC
CCGAGTGGCGCCGCGCTTTGGCCAGAAGTCAGCCGTGGCCAAACACCAGTGGGTTTCATCGGCCCGGGGCGGGG
GGCCACAGGGGCGGGTTCGCCGGGCGTCTGTCTGTGACCTGACCCCTGGCCACGGAGACCTGGACCCGCGCGTG
GGCTTCCAGCTGTACC CGGAGATATTCAGGAGTGTGGGTGACGGCCTTAAAAGTGAATCTAGACATTACGGG
AGGCCCCAGATGGGCTCAGGGGCCGAACCTCTGCGGCGGCTGCAGGGAGGTCCAGAATCTAGGGCAAGAGCT
GGCCCTGGGGTGGGACAGTCTGATCTTGGGCCCTTAGCAGCCTCCTCTGCCAGCACCTTGCTCCCCACTGCCCA
GGGCTCTCCAAGGCCCTCTACTGAGGCAGGCTGAGTTGAGAACCCCCAGACCTACATAAGGGGAACCAAAAG
CTGTTTCTCAGCCCAGAGGTGCTAAGAGGACTGAGGTAGAGGAGAACCTTGTTTACCCATTGTCTTTTAAATT
TTTTATCATTATTTTTATTCTTGTGACCTCCCAGAACACAATACTCATTGTCTTTTATTTATTTATTTATTTA
TTTCTGAGACAGCTTCCTGCTCTGTCAACCCAGGCTGGAGTGCAGTGGTGTGAACAGGGCTAACTGCAGCCTCAAC
CTGCAGTGTCTAAGGAATCCTCTCCCATCAGCCTTCCAAATATCTGAGACTACAGGCGGGCAACACTACGGCCAG
CTAATTTTTAAATTTTACATAGAGATGAGGTTCTCACTGTTGTCCAGGCTGGTCTCAAACCTCCTTGGCTGAAGTG
ATCCTGTCTGCTCGGCTTCCGCAAGTGCTGGGATTACAGGCGTGAGCTACCACCATGCCTGGCTTCCATTGTCTT
TGTTGTGTGTGTGTGTGTGATGGGGTTTTGCTCTTGTGTTGCCAGGCTGGAGTGCAATAGCGCAATCTCAGCTCACT
GCAACCTCTGCCTCCAGAGTTCAAGCAATTCTCCTTCCCTCAGCCTCCCAAGTAGCTGGGACTACAGGCACCCACC
ACCTCCATTGTCTTTTTACTGCCCAAGTTAAATCCTGTGACTGTGTACTGGATCTGGCCTGCGGTTGTCTATTT
TATTGATCTGAGTCCAGGCAGTGTTTTTAAGTGATATGAGTTAGTAGTGAAAATTGAAAAGGATATTTTACAACC
AAATACAGGTTTTCTGGTGTCTTTTGAATAATCCAAAGATTTGGCAACTCGACCTAGGCTCCGACAAAACACAG
TTGTTGGGAGCTGAGCCGGAGCCAGAATCACAATTCACCGTGGCCCGGCCACCCATCCCCACCACTCCCGTGGG
CTCCTGACCAAGCACCGTGCCATTATCATGGCTTGCTTTTAGTGTTTTGGTGTATCTTAAAGTACAGCG
AAGAAGAAAGGGAAGTATTTCTTAGACCCATGTCTCTGTCCAAATAGGCCTTTCCATCTGGCATTTCCTGCTCAT
TTATATGACTTGCTGAGTTCCTATGGTCATTTGAGTTTGCAACAGTGGTCTGTAGCACTCAGGTTTTCTGGAGT
TGGAGAGAAAGGTGGCAAGAGAGAAGTAAAAGTTGGTTTTATTTTAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 4457

MAPPLAPLPPRDPNGAGPEWREPGAVSFADVAVYFCREEWGCLRPAQRALYRDVMRETYGHLALSALGIGGNKPALI
SWVEEEAELWGPAAQDPEVAKCQTQTDPADSRNKKKERQREGTGALEKPDFVAAGSPGLKSPQAPSAGPPYGWEQ
LSKAPHRGRPSLCAHPPVPRADQRHGCVCGKSFWRSTLVEHVYSHTGEKPFHCTDCGKGFGHASSLSKHRATH
RGERPHRCLECGRAFTQRSALTSRLRVHTGEKPYGCADCGRRFSSQSSALYQHRRVHSGETPFPCPDCGRAFYPS
DLRRHVRTHTEKPYPCPDCGRRCFRQSSEMAVHRRTHSGEKPYPCPQCGRRFQKSAVAKHQVWHRPGAGGHRGR
VAGRLSVTLTPGHGDLDPFVGFQLYPEIFQECG

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FIGURE 4458

CTGGGGATCTACGCTGAGTTCCGGAGATGCTCCAGCTCGGGCCGCCCTGTCTGAGCGGAGCTTTGCGGCGCTGAA
GCTTACAGGGGAAGGAAAAGCCTCGCCCGGCGTCTGATTGGCGGAACCGCGCTGCCCGAGCCTGGGATTCCCCAG
GGACCCCCCGGAGCCGCCGCTCTCCCATGGACTTGCCCGGGGACTCCAGCCCGCCTGGCCAGCCGCGTCTGTG
CCGCCAGCCTCTGACTCGAGCATTATGGGGAGCCAGGAGCCCCGAAACGGCCGAGGCTGCAGCTCCCGGGGGCCCC
TTCTCCCCTGGAAGGCGCTCTCGGCGGGTCTTGCCGTGGTGCTAGAAAGATGTCATGGCTGTTACATGGTCCC
CGTGGTGCCCTCAAAGCAGACCTCCATACCACAGCACACAGCTACCATCAGGATCCTGTCCACAGGCAGCCGCC
TGCCCTCGCCACCCCGGAGCCGGGTGGTCCCTCGCAGGCCAGGCCTCCCGACCCTCTGTGTTTGTGTGCGGAGCC
CTTGAGCCGCATCCACCGGACCTCTTCCACCCTGAGGCGGCGATCAAGGACAACCCCTGGCCCAGAGGAGGGCCC
TTCACAAAAGGTGGACCGGGGCCCCCAGCCACCCCTGGTGGTGATGCTGGAAGACATCGCCAGTCTTAGACCCCC
CGCTGAGGGCTTCATTGATGAGACCCCCAACTTCATCATCCAGCACAAAGAGCTGAGCCCATGAGGATAGTTTCG
CCAGCCAACGCCCTCCACCTGGGGACCTAGAACCCCCATTCAGCCATCTGCTCTGCCTGCAGACCCTCTGGAGAG
CCCACCAACAGCCCCAGATCCTGCTCTGGAGCTCCCATCCACCCACCACCGTCCAGCCTTTTACGCCCCCGCCT
CAGTCCCTGGGGCTTGGCCCCGCTCTTCCGTTCCGTCCGCTCCAAGCTGGAGAGCTTTGCTGACATCTTCTCAC
GCCCAACAAAACCCACAGCCCCACCCCGTCCCCCCTAATGAAGCTGGAGTTGAAGATCGCCATCTCAGAGGC
CGAGCAGTCTGGGGCTGCTGAGGGCACTGCGTCTGTGAGCCCCGGCCCCAATCCGCCAGTGGCGAACTCAGGA
CCACAATACCCAGCACTTCTCCCTAAGCCCTCTCTGGGCCGAAGCTACTCCTGCCCTGATCTGGGGCCCCCTGG
CCCAGGTACCTGCACCTGGCCACCTGCTCCACCCCAACCAAGCCGACCACGGCCGCGGCGGCACACTGTGGGTGG
TGGGGAATGGCCCGAGCCCCGCCACCCCTCGGCCCTGTCTCCGGAAGAGGTCTTCCCTCTCGGAGGAGTGGG
AGCCTCCCTTCTCTCACCACATCTTGCTCGTCCACGGCATCCACTTCTTCTCCGAACACAGCAGAACCCAGGTT
GGGTTCAACCAAGGGAAGGAGCCAAGAGCCTCAAAGGACCAGGTGCTTTCAGAACCTGAGACCAAGACCATGGG
AAAGGTTTCTCGATTGAGAATACGCAGAACACCAGCCCGTCTCAGCTAAACCTTACACCAATGGGACTGCCTCG
ACCAATCAGGTTGAACAAGAAGGAGTTGAGCTTGGAAGAAATTTACACCAACAAGAATTACCAATCACCCACAAC
CAGGAGGACCTTTGAGACCATCTTTGAGGAACCCCGGGAGCGCAATGGGACTCTGATTTTACCAGCTCAAGGAA
GCTCCGGCGGGCTGTGGAATTTGCGGACAGCAGCCTTCTCGATCACGAAGACCGTCCCGTGGGGTCCGGGCTGC
AGGGGGCAGGACTGTTTCTCCCAATGTGGCCCCCAGCCCTGATGTGGGCCCCCTGCTCCAGCAGCGGCTGGAGGA
GCTAGATGCCCTTGCTCCTGGAGGAAGAAACAGTAGATCGGGAGCAGCCCCACTGGACCTAGGTGCCCCATCTGTT
GGTCATCCATCCTGAAGGGACAGGAAACCTCCAGGCAGTTATTTTTTTTTTCTCTATATTTCTAGTAAAGTTTT
CGATATGTTTCTGAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 4459

MDLPGDSSPPGQPRLCRQPLTRALWGARSFKRPRQLQPGAPSPLEKASRRVLAVVLEDVMAVHMVPVVP SKQTSI
PQHHSYHQDPVHRQPPASPPRQAGWSSQARPPDPLCLCREPLSRIHRTSSTLRRRSRTTPGPEEGPSQKVDRAPQ
PTLVVMLEDIASPRPPAEGFIDETPNFIIPAQRAEPMRIVRQPTPPPGDLEPPFQPSALPADPLESPPTAPDPAL
ELPSTPPPSLLRPRLSPWGLAPLFRSVRSKLESFADIFLTPNKTPQPPPPSPPMKLELKIAISEAEQSGAAEGT
ASVSPRPPIRQWRTQDHNTPALLPKPSLGRSYSCPDLGPPGPGTCTWPPAPPQPSRPRPRRHTVGGGEMARAPP
PRPCLRKEVFPLGGVGASPSLTTSSTASTSFSEPAEPRLGSTKGKEPRASKDQVLSEPETKTMGKVSFRIR
TPARPQLNLTPMGLPRPIRLNKKEFSLEEIYTNKNYQSPTTRRTFETIFEPRERNGLIFTSSRKLRRAVEFRD
SSLPRSRPSRGVRAAGGRTVPPNVAPSPDVGPLLQQRLEELDALLLEEETVDREQPHWT

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FIGURE 4460A

GCTAGGCTGACCCTCCTGCAGGTGACGGAAGTACCGCCTCCTCCCGTTTGACGCCCCCTCAGGGGACCCTGCATCG
CTCCAGCCGCCCGCGGCCATGTCTGGGCCAGGCAACAAACGCGCCGCCGGCGACGGGGGCTCAGGGCCCCCGGAAA
AGAAGCTGAGTCGTGAGGAGAAGACCACCACGACTCTTATCGAGCCCATTCTGTCTTGAGGCATCTCTTCCACGG
AGGAGATGGACCTGAAGGTACTACAGTTCAAGAACAAGAACTGGCAGAGCGGCTGGAACAACGGCAGGCTTGTG
AAGATGAACTCCGAGAACGAATTGAGAAGTTGGAGAAGCGGCAGGCCACAGATGATGCCACACTCCTCATCGTCA
ATCGCTACTGGGCCCAGCTGGATGAACTGTGGAAGCCCTTCTCCGATGCCATGAGAGCCAGGGGGAGCTGTCTT
CAGCGCCTGAGGCACCTGGGACCCAGGAGGGGCCAACATGTGATGGGACTCCTCTCCAGAGCCGGGGACATCAG
AGCTGAGAGACCCCTTGCTGATGCAGCTGCGGCCCCCTCTCAGTGAGCCGGCCTTGGCTTTTGTGGTGGCACTGG
GTGCCAGCAGCAGTGAGGAGGTGGAGCTGGAGCTGCAAGGCCGAATGGAGTTCTCCAAGGCAGCTGTGTCTCGTG
TGGTAGAGGCCCTCAGACCGCTACAGCGCCGGGTGGAGGAACTCTGTGAGCGAGTGACAGCCGAGGGGACAGTG
AGCCCCCTCAGTGAGGCGGCTCAGGCACACACCCGAGAGCTGGGCGGTGAGAACCGGCGACTGCAGGACTTGGCCA
CTCAGCTGCAGGAGAAAACACCACCGCATCTCATTGGAGTACTCCGAGCTCCAGGATAAAGTGACATCGGCAGAGA
CCAAGGTGTGTGGAGATGGAGACAACAGTGGAGGACTTGAGTGAGGACATCGAGAAGCTGCGGAAGCGAGAGCAAA
AGTCAATAAGCACCTGGCAGAGGCCTTAGAGCAGCTTAACTCTGGCTACTATGTATCTGGGAGCTCCTCAGGCT
TCCAGGGGGGCCAGATCACACTCAGCATGCAGAAAGTTTGAGATGCTGAATGCAGAGTTAGAGGAAAACAGGAAC
TGGCCAAACAGCCGTATGGCAGAGCTGGAGAACTGCAGGCCGAACTTCAGGGGGCTGTGCGGACCAATGAGCGCC
TCAAGGTGGCCCTGCGGAGCCTTCTGAGGAGGTAGTGCGGGGAGACGGGGGAGTACCGCATGCTGCAGGCCCAAT
TCTCACTGCTCTACAACAGTCTCTGCAAGTGAAGACCCAGCTAGACGAGGCTCGGGGCTGCTGCTGGCCACAA
AGAACTCCACCTGCGACACATCGAGCACATGGAGACGACGAGCTGGGGCTGCAGAAGAAGCTACGCACAGAGG
TCATTCACTGAGTGAGGACACGCTGGCCCAAGGTACGCAAGGAGTATGAGATGCTGCGCATCGAGTTTGAGCAGAATC
TGGCGGCCAACGAGCAGGCGGGGCCATCAACCGTGAGATGCGCCACCTGATTAGTAGTCTTCAAACACCAACC
ACCAGCTAAAAGGGGACGCCCAGCGATACAAGCGGAAGCTTCGAGAAGTACAAGCTGAGATTGGGCAAGCTCCGGG
CCCAGGCCAGTGCTCTGCCCCACTCCACCCCCAACCTGGGCCACCCAGAGGATTCTGGCGTCAGTGCCCCAGCCC
CAGGGAAAGAGGAGGGTGGGCCAGGCCCTGTCTAGTACCCCCGACAACAGAAAGGAGATGGCTCCAGTGCTGGCA
CCACCACTACTACCACTTCAGTGAAGAAGGAGGAGCTGGTCCCCTCTGAAGAGGACTTCAGGGGTATAACCCCTG
GGGCCCAGGGCCCTTCTCCCGGGGCCGAGAACCTGAGGCCAGGCCCAAGCGGGAGCTTCAGGAACGGGAAGGTC
CCAGCCTAGGACCTCCACCTGTAGCCTCCGCTCTCTCAAGGGCTGATCGGGAGAAGGCCAAGGTGGAAGAAACCA
AGCGGAAGGAATCAGAACTCCTCAAGGGTCTCCGAGCAGAGCTCAAGAAGGCCCAGGAGAGCCAGAAGGAGATGA
AACTGCTGCTGGATATGTACAAGTCAGCGCCCAAGGAGCAGCGGGATAAGGTGCAGCTCATGGCAGCGGAACGCA
AGGCTAAGGCCGAGGTTGATGAGCTGCGGAGCCGCATCCGGGAATTGGAGGAGAGGGATCGAAGGGAGAGCAAGA
AGATCGCGGATGAGGATGCCCTGCGGCGCATTCCGGCAGGCAGAGGAGCAGATAGAACACCTGCAGCGCAAGCTGG
GTGCCACCAAGCAGGAGGAGGAGGCTCTGCTCTCAGAGATGGATGTGACAGGTGAGGCTTTTGAGGACATGCAGG
AACAGAACGGGCGGCTGCTACAGCAGTTGCGGGAAAAGGATGATGCCAACTTTAAGCTAATGTGAGAGCGGATCA
AGGCCAACAGATTACAAAGCTGCTGCGGGAGGAGAAGGATGAGTTGGGCGAGCAGGTCCTTGGCCTCAAGTCCC
AGGTGGATGCCAGCTGCTGACTGTGACAGAAGCTAGAGGAGAAGGAGCGAGCCTTGCAGGGCAGCCTCGGGGGTG
TGGAGAAGGAGCTGACGCTGCGCAGCCAAGCCCTGGAGCTCAACAAGCGGAAGGCTGTAGAAGCGCCCAGCTGG
CCGAGGACCTGAAGGTGCAGCTGGAGCACGTGCAGACTCGGCTGCGGGAGATCCAGCCCTGCCTGGCAGAGAGCC
GGGCTGCTCGTGAGAAAGAGAGCTTCAACCTCAAGAGGGCTCAGGAGGACATCTCACGGCTGCGGCGCAAGCTGG
AAAAGCAGAGGAAGGTGGAGGTCTACGCAGATGCCGACGAAATCCTCCAGGAGGAGATCAAGGAGTACAAGGCGC
GGTTGACCTGCCCCCTGCTGTAAACCCCGCAAGAAGGATGCAGTCTTACCAAGTGCTTCCACGTTTTCTGCTTCG
AGTGCGTGCGGGGCCGCTATGAGGCCGCCAGAGGAAGTGCCCCAAGTGCAACGCGGCCCTTTGGTGCCCCAGACT
TCCATCGTATCTACATCAGCTGAACCTGAACTCAGGGGACTCTGGAACACCATGGACCCTGGGGGCTGTGCCCC
CATCTCCTCCCCACCCAGGTCTAGTGGCCCCACCCTCCATTCCGGACCCCATGGGCCAGCCCCTGCCATCTA
GTTGGTTTGGGGACCCTGGTGCATGCTAGTGGGCATGGGATCAGCCAAGCTTCGTTCCATCTTTTCTAAAGGTC
AGAGCTGCAGCCTAGGGGGCACTGCCCTACAGAAAAGGTCTGCCTGAGAGGCCTGAGGAGCCCAGAGCACTTGAC
TGAGCTTCCCGGAAACTGGCCCTAACCTGTCTGTCTCCGTGGATGCATCTAACCTAAGGAAAATTCCCCAGGC
TGTGATCTACCCTAGAGAAGGCTCGCTCCCTGCCTACTGGCTCACAAATGAGGACCAGTGAGCCATGTCTTGT
CCTTGTGTTGAGACTGGGCTGCAGGCCCCAGGAAGACTTTCCTTCAACCACCATCCCCCTAACCTCGGCAGGGCTT

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FIGURE 4460B

CTGTCCTGTGGAGTTCCCTGGACACCTTGGTCTGGCTCTTGTGCCAAGGGCTGAAGGAGGTACCCTCTTGGCAGA
TGGGGGCATCACTTGCTTCCTTTGGGAAGCTCTAAGGTTGCTGCAGTCACCTTCCTCATCTTGCAGGTGCTGAAC
CAACATCATCAGTTTCTATTCTAATCAGGCCCCCTTCCCAATCTCCATTTCTCTGCCAAGCCCATTACCCCCACC
TCATGCATCCCAAGGCTCTACTGGGTCCCTGGACCTAACCTTGCTTTCATCCTGGTGGCCTTAACTACAGTGGAG
GTGGAACCTCCAGGAGGGGAAGGGACAGACCAGCCCCAGCCGCTGGGCCAACTTCCAATCATTCCAGCTAGAAG
AGCTTCCCCCTGACACCCTGTGACTGAGCCTGTGTCTGTCTGCCTGCCCAGCCATGCTCCATCGGCTGTGAGGG
CAGTGCCCGGAGAGGCCAGAGGGTTGGAGCTGCAGGGACCCGTTTGGACCCACAGCCTCTGTTCTAGAGATGCTT
GTATAGGCTGTTAATTGTGATGAATAAACGTTCAACCCTCGGCCTGCAGCCAGAGTAGCCAGGCCGCGCACCCC

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FIGURE 4461

CATGGGGTCCTGTCCCAGCAATTCTGTGGAGCTCATCAACAAGTGCAATTCAATGCAGTCCGAATACCGGGAGAAG
AACGTGGAGCGGATTCTGGAGGCAGCTGAAGATCACCAATGCTGGGATGGTGTCTGATGAGGAGTTGGAGCAGATG
CTGGACAGTGGGCAAAGCGAGGTGTTTGTGTCCAATATCCTGAAGGACACGCAGGTGACTCGACAGGCCTTAAAT
GAGATCTCGGCCCCGGCACAGTGAGATCCAGCAGCTTGAACGCAGTATTCTGTGAGCTGCACGACATATTCACTTTT
CTGGCTACCGAAGTGGAGATGCAGGGGGAGATGATCAATCGGATTGAGAAGAACATCCTGAGCTCAGCGGACTAC
GTGGAACGTGGGCAGGAGCACGTCAAGACGGCCCTGGAGAACCAGAAGAAGGCGAGGAAGAAGAAAGTCTTGATT
GCCATCTGTGTGTCCATCACCGTCGTCTCTCTAGCAGTCATATTGGCGTCACAGTGGTTGGATAATGTCGCACA
TTGTTGGCACTAGGAGCACCAGGAACCCAGGGCCTGGCCTTCTCTCCAGCAGCCTGGGGGGCAGGGCAGAGCCT
CCAGTCGGACCCCTTCCTCACACTGGCCCCCTATGCAGAAGGGCAGACAGTTCTTCTGGGGTTGGCAGCTGCTCAT
TCATGATGGCCTCCTCCTTCAGGCCTCAATGCCTGGGGGAGGCCTGCACTGTCCTGATTGGCCGGGACACACGGT
TTTGTAATAAATTAAAAACAAAAAAGAGCATAGAAA

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FIGURE 4462

GGTTTTCTCCGCGGGCGCCTCGGGCGGAACCTGGAGATAATGGGCAGCACCTGGGGGAGCCCTGGCTGGGTGCGG
CTCGCTCTTTGCCGTGACGGGCTTAGTGCTCTCGCTCTACGCGCTGCACGTGAAGGCGGCGCGCCCGGGACCGG
GATTACCGCGCGCTCTGCGACGTGGGCACCGCCATCAGCTGTTGCGCGCTCTTCTCCTCCAGGTGGGGCAGGGGT
TTCGGGCTGGTGGAGCATGTGCTGGGACAGGACAGCATCCTCAATCAATCCAACAGCATATTCGGTTGCATCTTC
TACACACTACAGCTATTGTTAGGTTGCCTGCGGACACGCTGGGCCTCTGTCTGATGCTGCTGAGCTCCCTGGTG
TCTCTCGCTGGTTCTGTCTACCTGGCCTGGATCCTGTTCTTCGTGCTCTATGATTTCTGCATTGTTGTATCACC
ACCTATGCTATCAACGTGAGCCTGATGTGGCTCAGTTTCCGGAAGGTCCAAGAACCCAGGGCAAGGCTAAGAGG
CACTGAGCCCTCAACCCAGCCAGGCTGACCTCATCTGCTTTGCTTTGGCATGTGAGCCTTGCCCTAAGGGGGCAT
ATCTGGGTCCCTAGAAGGCCCTAGATGTGGGGCTTCTAGATTACCCCTCCTCCTGCCATACCCGCACATGACAA
TGGACCAAATGTGCCACACGCTCGCTCTTTTTTACACCCAGTGCCTCTGACTCTGTCCCCATGGGCTGGTCTCCA
AAGCTCTTTCCATTGCCCAGGGAGGGAAGGTTCTGAGCAATAAAGTTTCTTAGATCAATC

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FIGURE 4463

GGGCGCAGGCGGCTGGGCGCCTGGCGAGTGGACTGTTTCGAGCCCTTCCGCTGGGACCCGGGCCCCTGGCTCCGGCC
CCGCGATGGGAGCTGCTCTCCGCGGGCTGAGCCTGTCAGCATCCTCGACGCACCCTGGTCCCTGAAGTCGGAGAA
GAGCCCCACCCACCCACACCCCTTGCCCCATTTTGGGTGCGCTGGGTCTCAGTCCTAGCGGATCCTCAGTCC
TAGCGGCCACCGGGTCTGAAAGGAGCAAGACGATGATCCTGGCGTCGGTGCTGAGGAGCGGTCCCGGGGGCGGGC
TTCCGCTCCGGCCCCCTCCTGGGACCCGCACTCGCGCTCCGGGCCCGCTCGACGTCGGCCACCGACACACACCACG
TGGAGATGGCTCGGGAGCGCTCCAAGACCGTCACCTCCTTTTACAACCAGTCGGCCATCGACGCGGCAGCGGAGA
AGCCCTCAGTCCGCTAACGCCACCATGATGCTCTACGCTGGCCGCTCTCAGGACGGCAGCCACCTTCTGAAAA
GTGCTCGGTACCTGCAGCAAGAACTTCCAGTGAGGATTGCTCACCGCATCAAGGGCTTCCGCTGCCTTCCTTTCA
TCATTGGCTGCAACCCACCATACTGCACGTGCATGAGCTATATATCCGTGCCTTCCAGAAGCTGACAGACTTCC
CTCCGATCAAGGACAGGCGGACGAGGCCAGTACTGCCAGCTGGTGCGACAGCTGCTGGATGACCACAAGGATG
TGGTGACCTCTTGGCAGAGGGCCTACGTGAGAGCCGGAAGCACATAGAGGATGAAAAGCTCGTCCGCTACTTCT
TGGACAAGACGCTGACTTCGAGGCTTGGAATCCGCATGTTGGCCACGCATCACCTGGCGCTGCATGAGGACAAGC
CTGACTTTGTGCGCATCATCTGTACTCGTCTCTCACCAAAGAAGATTATTGAGAAGTGGGTGGACTTTGCCAGAC
GCCTGTGTGAGCACAAAGTATGGCAATGCGCCCCGTGTCCGCATCAATGGCCATGTGGCTGCCCGGTTCCCTTCA
TCCCTATGCCACTGGACTACATCCTGCCGGAGCTGCTCAAGAATGCCATGAGAGCCACAATGGAGAGTCACCTAG
ACACTCCCTACAATGTCCCAGATGTGGTCATCACCATCGCCAACAATGATGTCGATCTGATCATCAGGATCTCAG
ACCGTGGTGGAGGAATCGCTCACAAAGATCTGGACCGGGTCATGGACTACCACTTCACTACTGCTGAGGCCAGCA
CACAGGACCCCGGATCAGCCCCCTCTTTGGCCATCTGGACATGCATAGTGGCGCCAGTCAGGACCCATGCACG
GCTTTGGCTTCGGTTGCCACGTACGGGCCTACGCGGAGTACCTCGGTGGGTCTCTGCAGCTGCAGTCCCTGC
AGGGCATTGGCACGGACGTCTACCTGCGGCTCCGCCACATCGATGGCCGGGAGGAAAGCTTCCGGATCTGACCCC
ACAGCCTTTGGCTGCTCACCCGACCAGCCTGGGCCGATTCCCTGCAGGACCTCCCGGGTCAGGCAGGGCGGCC
CCCTGCTCCACACACTGCTGCATCTTGGGTCTCAGGGACCCAGACAGATGGACTTACATGGAGCTGGGCACTGCC
CTGCCTCAACAGGGTCCATTGCCTCCTCGCTCCAGAACTTGGAGCAGGGAAGTGGGCACCCTGAGGCCTCCAGC
ACAGTTCGGTCACTTCTCGTTCCTGGGGAACCCCACTCTGACCTGTTATTAAAGTTCACATTTGAATGCCCTC
TCGGGCCCCGTGTGTGGGAGGGCAGGTG

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FIGURE 4464

MILASVLRSGPGGGLPLRPLLGPALALRARSTSATDTHHVEMARERSKTVTSFYNSAIDAAAEEKPSVRLTPMM
LYAGRSQDGSHELLKSARYLQQELPVRIAHRIKGFRCCLPFIIGCNPTILHVHELYIRAFQKLTDFPPIKDQADEAQ
YCQLVRQLLDDHKDVVTLAEGLRERKHIEDEKLVRYFLDKTLTSRLGIRMLATHHLALHEDKPDFVGIICTRL
SPKKIIEKWVDFARRLCEHKYGNAPRVRINGHVAARFPFIPMPLDYILPELLKNAMRATMESHLDTPYNVPDVVI
TIANNDVDLIIRISDRGGGIAHKDLDRVMDYHFTTAEASTQDPRISPLFGHLDMHSGAQSGPMHGFGLPTSRA
YAEYLGGSLQLQSLQGIGTDVYLRRLRHIDGreesfri

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FIGURE 4465

ATGCTCAGTCCTCCAGGCGTCGGTGCTCAGCGGTGTTGGAACCTTCGTTGCTTGCTTGCTTGCTTGCTTGCTGCGCGCGTGCGCG
GACATGGCCTCAAACGATTATACCCAAACAAGCAACCCAAAGCTATGGGGCCTACCCACCCAGCCCCGGGCAGGGC
TATCCCAGCAGAGCAGTCAGCCCTACGGACAGCAGAGTTACAGTGGTTATAGCCAGTCCACGGACACTTCAGGC
TATGGCCAGAGCAGCTATTCTTCTTATGGCCAGAGCCAGAACACAGGCTATGGAACTCAGTCAACTCCCCAGGGA
TATGGCTCGACTGGCGGGCTATGGCAGTAGCCAGAGCTCCCAATCGTCTTACGGGCAGCAGTCTCTACCTTGGC
TATGGCCAGCAGCCAGCTCCCAGCAGCACCTCGGGAAGTTACGGTAGCAGTTCAGAGCAGCAGCTATGGGCAG
CCCCAGAGTGGGAGCTACAGCCAGCAGCCTAGCTATGGTGGACAGCAGCAAAGCTATGGACAGCAGCAAAGCTAT
AATCCCCCTCAGGGCTATGGACAGCAGAACCAGTACAACAGCAGCAGTGGTGGTGGAGGTGGAGGTGGAGGTGGA
GGTAACTATGGCCAAGATCAATCCTCCATGAGTAGTGGTGGTGGCAGTGGTGGCGGTATGGCAATCAAGACCAG
AGTGGTGGAGGTGGCAGCGGTGGCTATGGACAGCAGGACCGTGGAGGCCGCGGCAGGGGTGGCAGTGGTGGCGGC
GGCGGCGGCGGCGGTGGTGGTTACAACCGCAGCAGTGGTGGCTATGAACCCAGAGGTCTGGAGGTGGCCGTGGA
GGCAGAGGTGGCATGGGCGGAAGTGACCGTGGTGGCTTCAATAAATTTGGTGGCCCTCGGGACCAAGGATCACGT
CATGACTCCGAACAGGATAATTAGACAACAACACCATCTTTGTGCAAGGCCTGGGTGAGAATGTTACAATTGAG
TCTGTGGCTGATTACTTCAAGCAGATTGGTATTATTAAGACAAACAAGAAAACGGGACAGCCCATGATTAATTG
TACACAGACAGGGAACTGGCAAGCTGAAGGGAGAGGCAACGGTCTCTTTTGATGACCCACCTTCAGCTAAAGCA
GCTATTGACTGGTTTGATGGTAAAGAATTCTCCGGAATCCTATCAAGGTCTCATTGCTACTCGCCGGGCAGAC
TTTAATCGGGGTGGTGGCAATGGTCGTGGAGGCCGAGGGCAGGAGGACCCATGGGCCGTGGAGGCTATGGAGGT
GGTGGCAGTGGTGGTGGTGGCCGAGGAGGATTTCCAGTGGAGGTGGTGGCGGTGGAGGACAGCAGCGAGCTGGT
GACTGGAAGTGTCTTAATCCCACCTGTGAGAATATGAACCTCTCTTGGAGGAATGAATGCAACCAGTGTAAAGCC
CCTAAACCAGATGGCCCAGGAGGGGGACAGGTGGCTCTCACATGGGGGGTAACTACGGGGATGATCGTCGTGGT
GGCAGAGGAGGCTATGATCGAGGCGGCTACCGGGGGCCGCGGCGGGGACCGTGGAGGCTTCCGAGGGGGCCGGGGT
GGTGGGGACAGAGGTGGCTTTGGCCCTGGCAAGATGGATTCCAGGGGTGAGCACAGACAGGATCGCAGGGAGAGG
CCGTATTAATTAGCTGGCTCCCCAGGTTCTGGAACAGCTTTTTGTCTGTACCCAGTGTACCCTCGTTATTTT
GTAACCTTCCAATTCCTGATCACCACAGGGTTTTTTTTGTGTCGGACTATGTAATTGTAACCTATACCTCTGGTTC
CCATTAAAAGTGACCATTTTAGTT

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FIGURE 4466

MASNDYTQQATQSYGAYPTQPGQGYSSQSSQPYGQQSYSGYSQSTDTSGYGQSSYSSYGQSQNTGYGTQSTPQGY
GSTGGYGSSQSSQSSYGQQSSYPGYGQQPAPSSSTSGSYGSSSQSSSYGQPQSGSYSQQPSYGGQQQSYGQQQSYN
PPQGYGQQNQYNSSSGGGGGGGGGNYGQDQSSMSSGGGSGGGYGNQDQSGGGGSGGYGQQDRGGRGRGGSGGGG
GGGGGGYNRSSGGYEPRGRGGGRGGRGGMGGSDRGGFNKFGGPRDQGSRDSEQDNSDNNTIFVQGLGENVTIES
VADYFKQIGIIKTNKKTGQPMINLYTDRETGKLKGEATVSFDDPPSAKAAIDWFDGKEFSGNPIKVSFATRRADF
NRGGGNGRGGGRGGPMGRGGYGGGSGGGGRGGFPGGGGGGGQQRAGDWKCPNPTCENMNF SWRNECNQCKAP
KPDGPGGGPGGSHMGGNYGDDRRGGRGGYDRGGYRGRGGDRGGFRGGRGGGDRGGFGPGKMDSRGEHRQDRRERP
Y

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FIGURE 4467

ATGCCAAGGTCAGGGGCTCCCAAAGAGCGCCCTGCGGAGCCTCTCACCCCTCCCCATCCTATGGCCACCAGCCA
CAGACAGGGTCTGGGGAGTCTTCAGGAGCCTCGGGGGACAAGGACCACCTGTACAGCACGGTATGCAAGCCTCGG
TCCCCAAAGCCTGCAGCCCCGGCGGCCCCCTCCATTCTCCTCTTCCAGCGGTGTCTTGGGTACCGGGCTCTGTGAG
CTAGATCGGTTGCTTCAGGAACCTAATGCCACTCAGTTCAACATCACAGATGAAATCATGTCTCAGTTCCCATCT
AGCAAGGTGGCTTCAGGAGAGCAGAAGGAGGACCAGTCTGAAGATAAGAAAAGACCCAGCCTCCCTTCCAGCCCG
TCTCCTGGCCTCCCAAAGGCTTCTGCCACCTCAGCCACTCTGGAGCTGGATAGACTGATGGCCTCACTCTCTGAC
TTCCGCGTTCAAACCATCTTCCAGCCTCTGGGCCAACTCAGCCACCGGTGGTGAGCTCCACAAATGAGGGCTCC
CCATCCCCACCAGAGCCGACTGGCAAGGGCAGCCTAGACACCATGCTGGGGCTGCTGCAGTCCGACCTCAGCCGC
CGGGGTGTTCCCAACCAGGCCAAAGGCCTCTGTGGCTCCTGCAATAAACCTATTGCTGGGCAAGTGGTGACGGCT
CTGGGCCGCGCCTGGCACCCCGAGCACTTCGTTTGGCGAGGCTGTTCCACCGCCCTGGGAGGCAGCAGTTCTTC
GAGAAGGATGGAGCCCCCTTCTGCCCCGAGTGCTACTTTGAGCGCTTCTCGCCAAGATGTGGCTTCTGCAACCAG
CCCATCCGACACAAGATGGTGACCGCCTTGGGCACTCACTGGCACCCAGAGCATTCTGCTGCGTCAGTTGCGGG
GAGCCCTTCGGAGATGAGGGTTTCCACGAGCGCGAGGGCCGCCCTACTGCCGCCGGGACTTCCTGCAGCTGTTC
GCCCCGCGCTGCCAGGGCTGCCAGGGCCCCATCCTGGATAACTACATCTCGGCGCTCAGCGCGCTCTGGCACCCG
GACTGTTTCGTCTGCAGGGAATGCTTCGCGCCCTTCTCGGGAGGCAGCTTTTTCGAGCACGAGGGCCGCCGTTG
TGCGAGAACCACTTCCACGCACGACGCGGCTCGCTGTGCGCCACGTGTGGCCTCCCTGTGACCGGCCGCTGCGTG
TCGGCCCTGGGTGCGCGCTTCCACCCGGACCACTTCACATGCACCTTCTGCCTGCGCCGCTCACCAAGGGGTCC
TTCCAGGAGCGCGCGGCAAGCCCTACTGCCAGCCCTGCTTCCTGAAGCTCTTCGGCTGA

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FIGURE 4468

CAAAAGCTCGGCATCGCTGACGACGCGGGTTTGGAGACCCCGCTGTGTTCCGAGCAGTTTCGGCTCCGGGGAGGCA
CGGGGCTGCCGCGCCGCCGCGGACGGGAGCCTGCAGTGGGAGGTTCGGGGGCTGGCGCTGGTGGGGGCTCTCCAGG
GCCTTCACGGTCAAACCTGAAGGACGAGATGCGGGCGAAGTGGGGGCTTCGGGGCCCCCTACCGCCCCCTCTCC
GGGCTCCAGGCCGTGTTCCCTGCTCAGGGCTTCCTTGATAGCGTCAGCCCCGACTACTTGCCCTACCAGCTGTGG
GATTCCGTGCAGGCGTTTGCTTCCAGCCTCTCCGGCTCCCTAGCCACCCAGGCAGTCTTGCTGGGCATAGGGGTG
GGGAACGCAAAAGCCACTGTTTACGCTGCCACGGCCACCTGGCTCGTGAAAGATTCAACTGGCATGCTGGGCCGC
ATCGTCTTTGCCTGGTGGAAAGGGAGCAAACCTGGACTGCAATGCCAAGCAGTGGAGGCTTTTTGCGGACATCCTC
AATGACGTAGCCATGTTCCCTTGAGATTATGGCTCCTGTATACCCAATCTGTTTACCATGACCGTCTCCACCAGC
AACCTAGCCAAGTGCATCGTGAGTGTGCTGGTGGGGCCACTCGGGCTGCCCTGACCGTGCACCAGGCTCGGAGG
AACAACATGGCTGACGTGTGAGCCAAAGGACAGCAGCCAGGAGACGCTGGTGAACCTGGCGGGGCTCTTGGTCAGC
CTCCTGATGCTCCCTCTGGTGTGAGTTGCCCTGGCTTCAGCCTGGATGTTCTTCTTCTCACTGCCCTCCAC
ATCTACGCCAACTACCGCGCGGTCCGAGCCCTGGTCATGGAGACCTTGAACGAAGGCCGGCTCCGGCTGGTCTCTG
AAGCACTACCTTCAGAGGGGAGAGGTACTCGACCCAATGCAGCCAATCGCATGGAGCCGCTGTGGACAGGTTTC
TGGCCAGCTCCGTCTCTATCCCTGGGGGTCCCTTACACCGCTTGGTCTCCAGTGTCTTTGAGCTGCAGCAGCTG
GTTGAGGGGCACCAAGAATCCTACCTCCTCTGCTGGGACCAGTCACAAAACCAGGTACAGGTAGTTCTGAACAG
AAGGCAGGCCCCAAGACCATCCTAAGGGCCGCCACACATGGGCTGATGCTTGGGGCCCTGCAGGGAGATGGACCC
CTTCCAGCAGAGCTGGAGGAGCTGAGGAACCGGGTGGGGCAGGTCCCTAAGAAAGAGAGCTGGGTCTCGTCAAG
GAGACACACGAAGTGTGGACATGCTGTTCCAAAGTTCTTGAAAGGACTGCAGGATGCCGGCTGGAAGACCGAG
AAGCACCAGCTAGAGGTGGGTGAGTGGAGGGCCACATGGCTTCTGTCTCCCGAAAAGAAGGTCTTGTGAGCAGCC
CAGACGGAGGCCCAAGCCCAGGGCAGGAACCTGGAGCAAGGACACTTTGGCCACAGCAGGACAGGGGAAAGGCAG
CTTTATTTTTTCTTTAGGGCAACTGCAGCGGTGGGCCAGGCCCTCATGGGAAGTGAAGTGCCTCAATCAGATGCAGTG
GGCCCCAGGCAGAGGAAGGCCGGGAGAAAGGGGAGCCAGGACCTTCTCACCCTACTGCCCTTCCCTTTTTCTGGG
GAGCACCAGCAGGCTCCTCACCCTACTTCTGTGAGGCTGTGGCTTATGGTGTCCAACGCAGTTGGTCTTAGGCA
TAGAAGCCCCAGAGGAACACGGCCACTGCCATCATGAGCAGGGCATTGAGGTTGACCACACGGGCCCAGCTCGGG
TCCTCGCTGATGTCTCCAGCCGCTGGCTGCTGCCGCTGCCTCCTCCTGGGTAAGGGGCGGAGGACTGCCACC
CCACCTCTGCTCATTTCCACAAAACCAGAGCAGGCACTGGCGGAAGAGGCTTGGTGCCGGGGCCTGGGGCTCTGAG
GGAAATTGAGGCCCTGCAGTTAGTTTGGGGAACTCAGCTCCTCCAGCCCCACCTCCCAGCATGGTGCCCTACCA
TTCATCTCCATGGCACTCTCTGGGCACCCATTCTGTACAGGGAGTGAGGAGCCTTGCTGCTCATCAGCATCCAGG
TCCTCCCGTTCTCTCTTGCTATGCCGAGACTGAAGACCAGGCGGTGGAGCTGGGGAGGGTGGGAGCACGAACGA
GGTGGGAGTTCTGTCCCCCATGCTGGCCCTAAAGTCTCTTGACACCAGCTCGTCACTGCCTGCCCTACCCAC
CTCTGTCCAGTCTACACACCCAGCCAGGCTTAACCTATGCCAACTCCACCCTACATGGCTGCCCTGTGCCCTCG
GGATAAACCCCCAAGCCCCTGAGCTTGTGTTTAAAGCCGTGGCCCTTGCTCCCCCAGCTTTGTCAGCTCAGGTCTG
TCTACACCCAGATGGTAGCGCTTGTGACACTGGCCTGGCAGTCTGCTCACAGTGTCTGTGCTGTGTGCTCCC
ACCCTTTCTCTCTGCTGCTGCAGAAACCCGGCCATCCTTCCACACCCAGATCTCTTGCTCTGTCTCACCACCC
CTGCCACCATCAGCCCTGCCTGGAGCCACCTGCCCTTTGGCAACAAAACCAACCTTTTTGTGGGCGTTCAAGAT
GGTATTGTGCCACCAAGTCAGATCCTGTGTTTTGAGTCCCAAAGGCCATGCCAAGGATTGGCTTTGGGAGGCTTT
AATCACCAACCCATCAACATCAAGCCTCCCCAGGCCGGTTCAAATAAATGTATTTAAAT

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FIGURE 4469

MADDAGLETPLCSEQFGSGEARGCRAAADGSLQWEVGGWRWWGLSRAFTVKPEGRDAGEVGASGAPSPPLSGLQA
VFLPQGFDPDSVSPDYLPYQLWDSVQAFASSLSGSLATQAVLLGIGVGNAKATVSAATATWLVKDSTGMLGRIVFA
WWKGSKLCNAKQWRLFADILNDVAMFLEIMAPVYPICFTMTVSTSNLAKCIVSVAGGATRAALTVHQARRNNMA
DVS AKDSSQETLVNLAGLLVSLLMLPLVSGCPGFSLG CFFFLTALHIYANYRAVRALVMETLNEGRLRLVLKHYL
QRGEVLDPTAANRMEPLWTGFWPAPSLSLGVPLHRLVSSVFELQQLVEGHQESYLLCWDQSQNQVQVVLNQKAGP
KTI LRAATHGLMLGALQGDGPLPAELEELRNRVRAGPKKESWVVVKETHEVLDMLFPKFLKGLQDAGWKTEKHQL
EVGEWRATWLLSPEKKVL

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FIGURE 4470

GCTTCCCTGCTTGATCTGTGTACCTGCTCTTTCTCCTTCATTCCGCAGCCTCCTTTGCCCTGTGACCTGCAGGT
ACTGGACGGTCCCTAGAGAGGATACCGGGACGCTCCTGAAGCCGCGAGATGATTTCAAGCAGATGCAGCCTGACC
ATTAGGGCCAAGGCCAAATTGCAAAAAAAAAAAGAAGTTTGCTTTATTCTACTCCATCCACATCTAAACTTTGG
AGGTCAAGGCTGTGGACAGATCAGAAGACATAGTTCCCTCCTTCTGGGGCTCCACATCCTTCATTCACTGATCTC
TGGGAAGGAGGATGGGTGGCAGGATGGGTCTTCCATGATACTGAAGGGAGAGCCACATGTTGATGCCCAGGACCA
GCTGCCTCCTTGGTCTGAAAGGCCTGATCGAGGCCAGGATTGGCTATGAGAGCTGGGAAATGGGACCATCTTTGA
AGCCATGGGAGAGGGTGAGAGCCACCATCACTCATGTTCTTGAATGGGAACCTGCCGAGACCCCTGAAGAAGAAG
GAGCCTGAAGGAGGAAGGAGGAGGCTGAGCCATCCCGGGAACATGGGCTGGATGAGGCCAAGCCAGGAGACGACA
CCACCAGATAGAAGTCACCATTCAGGATTTGGACTTTTCTGTGGAGATCCTGGCCCCGAGATCGAACCCCTTCTCC
CTGTGGGTGTTCCCGCAGGAGATGGTGCTGGAGATCCACCAGCTGTTTCATGGACCATGAATACCCATGTCACCAC
ATCACTTCTCACTGCACCTGGGTGGCAGCACACTGGACCACGTCTCAGAGCTGCGCAGCATGGCAGGGCTGCAGG
CGGGCTTGCTGCTCCACGTGGTGGAAGAGCCCTGCACAATGCACAAGGCCACGGTGATGAGTGCCACATTTGAG
ACTGCTCAGGAGCCTGGACCCAGCTGATGCAGCTCCTTGCTCCTTCCTGAGCGTCTTCACTGACAGTGGCCTGAGA
GACGGCAGGAGCAGAAAGACTTGGAGATGGACCCACCGACTGCACACCACCCAAGTACATCCTGCTAGGGACCC
TGGAACAGCCACTGTGTCCCTTGCAACCCAGAACGGTGACTAAAAGCCCCTGAAAGTGCTCACCGTGAGCGGCT
GGTACCTGTCCCTGGGAAGTGAAGATGCACAGGACCTTGTGTACCTGTTTGTGATCACAGCCGAGGACCAGCG
AGGTAGCATTACCACATCCACACAGGGCTTTTACCATAACCGCCCCAGTACTGGAACGAGGAGCTGCAGATGATG
AGGGACCTACCCAACAAGAACCAACCTGAGCAGCTGCTTCAAGAAAAAGCCATGTTCAAGGTGCCTGAATCCCT
GGTAAGTGAGTGACAGCCTCACAGCCTCAGGCCACCTGGCTCCTGCTGGAAGGTTTTCTTGTGCTCGGGAGAGA
AGTGAGGGAAGCCGGCAGTCCAGCCCTGTCAGGTGCCCTGAAGGCCCGTCAGGTTTGCCCTGCAAGGCCTTCTA
GCATTCTGCTTCTTGGGAGACCATCCCCACCTTTCTCCGGCCTCTGAGACTTTGAGTCTTGGGAGGAGAAGGC
CCTCCTTGCTATCTGGGCTGAGTGGCCAGGGCCATCCAGCTTCCCACCCTCCACTGACTGCCATGGGGCCCTCCC
CTGAGCACATGGTGCCCAACTGTAGCCCTTCTAGGGCAGGGGCTCATGGCAGCACTTGCAGCTTGCTGGCACTT
AAAAGTCATTAGTGCGGTTACTGAGAGAAATGAGGAAAAATAATTGTTAAAAAAAAAAAAAAAAAAAAA

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FIGURE 4471

MFLNGNCLET LKKKEPEGGRRRLSHPGNMGWMRPSQETTPDRSHHSGFGLFCGDPGPEIEPFS LWVFPQEMVLE
IHQLFMDHEY PCHHITSHCTWVAHWTT SQSCAAWQGCR RACCSTWWKSPAQCTRPTVMSATFETAQEPGPS

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FIGURE 4472

AAGAAGAGGCGAGAAAGACCCCCGACAGACCAAAGCCCGTGCCGCTGCATCCTGCATCCAGCACCTACCTCC
CGCCACTGTCGCCACTGCCACCATGCCCAAGAGAAAAGGCTGAAGGGGATGCTAAGGGAGATAAAGCCAAGGTGAA
GGATGAACCACAGAGAAGATCCGCAAGGTTGTCTGCTAAACCTCCTCCTCCAAAGCCAGACAGCCCAAGCCTAGA
AAGGCCCCCTGCAAAGAAGGGAGAGAAGGTACCCAAAGGGAAAAAGGGAAGCTGATGCCCAGGAGGAGGGATTG
CCTGACTTTGACACACATGGCCACCTTGGCACAAAAGCCTTGTGGTATAGAAAAACAAATTTGTTTTATGTCCT
CTTCTCCCTTTCCATCTTTCAGCATAGACTTAACTCCCTTAAGCCCAGACATCTGTTGGGACCTGACCCCTTAGTC
ATTGGTTACCAGTGTGTCAGGCAATCTGGACTTTCCAGTGATGCCACTGAGATGGCACCTGTCAAAGAGTAGTG
GTTCCATTTCTAGATTGTAGATCTTCAGATAAATTCTGCCATTTTCATTTCACTTCCTGAAAGTCAGGGTCGGCT
TCTAAAAATTTGTTAAACAATATGCTAAATGTGAAATGTCACCCCTCACTCTAAACTTTCCCGTTCAGAGCATC
AGATGAAGACTTCATTGGGTTTTATAGTGGCTTTCTGATTTTTGGTAGTCCATTGAAGAAGGGAGTTTGAAAGTT
GTTGTATACTGTTAACGATTATCTGCCCATGTCCTGCCT

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FIGURE 4473

MPKRKAEGDAKGDKAKVKDEPQRRSARLSAKPPPPKPDSPSLERPLQRRRERYPKGKREKIMLRRRDSLTLTHMA
TLAQKPCGIEKQICFYVLFSLSFQHRLNSLKPRHLLGPDP

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FIGURE 4474

CCGCTCTGTCTGCTTCGCCACCTTCTCCCCGAGCACTGCCCGGCCGGCCGCC**ATG**GCTAACGTGGCTGACACGAA
GCTGTACGACATCCTGGGCGTCCCCGCCGGCGCCAGCGAGAACGAGCTGAAGAAGGCATACAGAAAGTTAGCCAA
GGAATATCATCCTGATAAGAATCCAAATGCAGGAGACAAATTTAAAGAAATAAGTTTTGCATATGAAGTACTATC
AAATCCTGAGAAGCGTGAGTTATATGACAGATACGGAGAGCAAGGTCTTCGGGAAGGCAGCGCGGAGGTGGTGG
CATGGATGATATTTTCTCTCACATTTTGGTGGGGGATTGTTTCGGCTTCATGGGCAATCAGAGTAGAAGTCGAAA
TGGCAGAAGAAGAGGAGAGGACATGATGCATCCACTCAAAGTATCTTTAGAAGATCTGTATAATGGCAAGACAAC
CAAAC TACAACCTTAGCAAGAATGTGCTCTGTAGTGCATGCAGTGGCCAAGGCGGAAAGTCTGGAGCTGTCCAAAA
GTGTAGTGTCTGTGCGAGGTGCGAGGTGTGCGCATCATGATCAGACAGCTGGCTCCAGGGATGGTACAACAGATGCA
GTCTGTGTGCTCTGATTGTAATGGAGAAGGAGAGGTAATTAATGAAAAAGACCGCTGTAAAAAATGTGAAGGGAA
GAAGGTGATTAAAGAAGTCAAGATTCCTGAAGTCCACGTAGACAAAGGCATGAAACATGGACAGAGAATTACATT
CACTGGGGGAAGCAGACCAGGCCCCAGGAGTGGAACCCGGAGACATTGTTCTTTTGCTACAGGAGAAAGAACATGA
GGTATTTT CAGAGAGATGGGAATGATTTGCACATGACATATAAAATAGGACTTGTGTAAGCTCTATGTGGATTTCA
GTTT CACATTTAAGCACCTTGATGGACGTCAGATTGTGGTGAAATACCCCCCTGGCAAAGTAATTGAACCAGGGTG
TGTTCTGTAGTTCGAGGTGAAGGGATGCCGCAGTATCGTAATCCCTTTGAAAAAGGTGATCTTTACATAAAGTT
TGATGTGCAGTTTCTGAAAACAACCTGGATCAACCCAGACAAGCTTTCTGAACTAGAAGATCTTCTGCCATCTAG
ACCGGAAGTTCTTAACATAAATGGAGAAACAGAGGAGGTAGAGCTTCAGGAATTTGATAGCACTCGAGGCTCAGG
AGGTGGTCAGAGGCGTGAAGCCTATAATGATAGCTCTGATGAAGAAAGCAGCAGCCATCATGGACCTGGAGTGCA
GTGTGCCCATCAG**TAA**ACTCTGCAAACAAATTGCACAGGTGGATTTTCTTTCCACATTTGCCTGATTTGTTCTCA
GCAATCCAGCTGGAGTGTCTTATCAATCCAGATGAAC TGAGGGACATCTGTTGGTCTATGTATAACTTTTAAAT
TGGTATAGTATCTACAGAGTGATAATTTAAACTAACCACAAAGCTTTACATCTTCATTTTGACTGTTCCATAGC
AGAATAAAGCACTTGAAAGGAAACAAGACTCCCTTTACACATGGATTATTATAAGTTTCAATCCTGGTATCTGT
GCTTGATTTTTATCAGTTTTGTGTAGATTTTTATGTTTCATATTTTAAATTTAAATCCACATTGTAAAGTTTGT
ACAATTTGTCTGAAGCTTTGTGTTTGGCTGCACCTGCATAAGCTGCTACAAATAGAATAAAGAATTTTCATAGCC
TGTAICTATCATTTAGATGCATGGAAAAAATGGGCTTTGCACACAATGGGTTTGGAGCTGACTGGGAACAATGG
AAAAAATTACATTAGCTGTGGTTGTAAAGTTTTTTTGTGTTTTTGGTTTTTGTGTTTTTTTTTCTTTTTTCTTTTTTT
TTTTTTTACCATCTTGTGAAAGGTTTCTGAAACTCGATAATAAAAAGCGGTTGGTGTAATTT

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FIGURE 4475

MANVADTKLYDILGVPPGASENELKKAYRKLAKYHPDKNPNAGDKFKEISFAYEVLNPEKRELYDRYGEQGLR
EGSGGGGGMDDIFSHIFGGGLFGFMGNQSRNRNGRRGEDMMHPLKVSLEDLYNGKTTKLQLSKNVLCSACSGQG
GKSGAVQKCSACRGRGVRIMIRQLAPGMVQQMQSVCSDCNAGEGEVINEKDRCKKCEGKKVIKEVKILEVHVVDKGM
KHGQRITFTGEADQAPGVEPGDIVLLLOKEKEHEVFQRDGNLHMTYKIGLVEALCGFQFTFKHLDGRQIVVKYPP
GKVIEPGCVRVVRGEGMPQYRNPFKGDLYIKFDVQFPENNWINPKLSELEDLLPSRPEVPNIIGETEEVELQE
FDSTRGSGGGQRREAYNDSSDEESSHHGPGVQCAHQ

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FIGURE 4476

GGCACGAGCGCGGCGTTTCACGGGAATTGTTTCGCTTTAGTGCCGGCGCCATGGGGTTCGGAGCTGATCGGGCGCCTA
GCCCCGCGCCTGGGGCTCGCCGAGCCCGACATGCTGAGGAAAGCAGAGGAGTACTTGCGCCTGTCCCGGGTGAAG
TGTGTCGGCCTCTCCGCACGCACACGGAGACCAGCAGTGTCAGTCATGTGCCTGGACCTTGACGCTTCTTGATG
AAGTGCCCCCTGGACAGGGCTTATTTAATTAAACTTTCTGGTTTGAACAAGGAGACATATCAGAGCTGTCTTAAA
TCTTTTGAAGTGTCTTACTGGGCTGAATTCAAATATTGGAATAAGAGACCTAGCTGTACAGTTTAGCTGTATAGAA
GCAGTGAACATGGCTTCAAAGATACTAAAAAGCTATGAGTCCAGTCTTCCCCAGACACAGCAAGTGGATCTTGAC
TTATCCAGGCCACTTTTCACTTCTGCTGCACTGCTTTTCAGCATGCAAGATTCTAAAGCTGAAAGTGGATAAAAAAC
AAAATGGTAGCCACATCCGGTGTAAAAAAGCTATATTTGATCGACTGTGTAAACAAGTAGAGAAGATTGGACAG
CAGGTCGACAGAGAACCTGGAGATGTAGCTACTCCACCACGGAAGAGAAAGAAGATAGTGGTTGAAGCCCCAGCA
AAGGAAATGGAGAAGGTAGAGGAGATGCCACATAAACCACAGAAAGATGAAGATCTGACACAGGATTATGAAGAA
TGGAAAAGAAAAATTTTGGAAAATGCTGCCAGTGCTCAAAGGCTACAGCAGAGTGAATTCAGCTTCCAAACTGG
TATACATTCCAAACTGATAGTACATTGCCATCTCCAGGAAGACTTGACGGCTTTGGGATTTTGTTTAACTTTTA
TAATAAGGATCCTAAGACTGTTGCCTTTAAATAGCAAAGCAGCCTACCTGGAGGCTAAGTCTGGGCAGTGGGCTG
GCCCCTGGTGTGAGCATTAGACCAGCCACAGTGCCTGATTGGTATAGCCTTATGTGCTTTTCTACAAAATGGAAT
TGGAGGCCGGGCGCAGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCAAGGTGGGTGGATCACCTGAGGT
CAGGAGCTCGAGACCAGCCTGGCCAACATGGTGAAACCCCATCTCTACTAAAAATACAAAATTAGCCAGGTGTG
ATGGTGATGCCTGTAATCCCAGCTCCTCAGTAGGCTGAGACAGGAGCATCACTTGAACGTGGGAGGCAGAGGT
GCAGTGAGCCGAGATTGCACCACCGCACTCCAGCCTGGGTGACAGAGCGAGACTTATCTCATAAATAAATAGATA
GATACTCCAGCCTGGGTGACAGAGCGAGACTTATAGATAGATAGATAGATAGATGGATAGATAGATAGATAGATA
GATAGATAGATAAACGGAATTGGAGCCATTTTGCTTTAAGTGAATGGCAGTCCCTTGTCTTATTCAGAATATAAA
ATTCAGTCTGAATGGCATCTTACAGATTTTACTTCAATTTTTGTGTACGGTATTTTTTATTTGACTAAATCAATA
TATTGTACAGCCTAAGTTAATAAATGTTATTTATATATGCAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 4477

MGSELIGRLAPRLGLAEPDMLRKAEYLRLSRVKCVGLSARTTETSSAVMCLDLAASWMKCPLDRAYLIKLSGLN
KETYQSCLKSFECLLGLNSNIGIRDLAVQFSCIEAVNMASKILKSYESSLPQTQQVDLDSRPLFTSAALLSACK
ILKLKVDKNKMVATSGVKKAI FDR LCKQLEKIGQQVDREPGDVATPPRKRKKIVVEAPAKEMEKVEEMPHKPQKD
EDLTQDYEEWKRKILENAASAQKATAE

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FIGURE 4478

TATTTTGT CAGATGTGTTGAACCTCGATTAA GATTGCATTATGACATTCTTGAAGACCGAGTTCCATCAGGACTT
ATTGTTGACTACCACAATCTGTTGTCTCAATGTGAGGAGAGTTACAGGAAATTTTAAATCTGAGAAGCAGTTTG
TCAAATTGTAACCTCTGATTCCGAGCAGGAAAATATCTCCATGGTGGAAAGGGTTAAAATTGTATTCCGAGATGGAA
CAGTTGAAACAAAAGCTGAAACTCATTGAGAATCCTTTGTTGAGGTATGTGTTTGGTTATCAGAAGAATTCTAAC
ATCCAAGCAAAGGGTGTCCGTTCCAGCGGTCAGAAGATCACTCATGTGGTCTCTCCACCATGATGGCTGGTCTC
CTGCGGTCCCTGCTTACGGACAGGCTTTGCCAGGAGCCTGGTGAGGAAGAAAGAGAAATTCAGTTCCATAGTGAT
CCATTGTCTGCTATAAATGCCTGCTTCGAAGGTGACACTGTTATTGTTTGCCTGGCCATTATGTGGTACATGGC
ACTTTCTCCATTGCTGACTCCATTGAGTTGGAAGGATATGGCCTACCAGATGACATTGTGATAGAAAAGAGGGGC
AAAGGCGACACTTTTGTGGACTGCACTGGTGTGATATTAATCTCAGGCATAAAATTTGTTACAGCATGATGCT
GTAGAGGGAATCTTAATTGTTACCGTGGTAAGACTACGCTGGAAAACGTGTGCTGCAGTGTGAGACGACCGGA
GTCACAGTGCAGGACATCAGCAGAGTTTCTAATGAAGAACTCGGATTTATATGGCGCCAAGGGTGCTGGTATAGAA
ATCTACCCTGGGAGTCAGTGCACCCTGAGTGACAATGGGATCCATCACTGCAAGGAAGGGATCCCTCATTAAAGGAC
TTCTTAGATGAACATTATGACATTCCCAAGATATCCATGGTGAATAATATAATACATAATAATGAAGGTATGGT
GTTGTCTTGGTGAAACCTACAATCTTCTGACCTGCAAGAAAATGCTGAAGATGGAACCTGAAGAAAATAAAGCG
CTTAAATTCAGACAAGTGGAGAGCCAGATGTGGCTGAAAGAGTGGATCTAGAAGAGCTGATTGAGTGTGCAACT
GGTAAATGGAGCTTTGTGCAAGAACTGACCCTTCTGAGCAAGTCGAGGGAAATTTGTGAAATGTAAATGAACTA
ATTGCTGCCTCCACACAGAAAGGCCAGATAAAGAAGAAAAGGTTGAGTGAACCTGGGGATCACGCAAGCTGATGAC
AACTTAATGTACAGGAGATGTTTGTGGGATTGTGGGGAACCAAGTTCAGTGAATGGGAAAGGTAGTTTTGGC
ACATTTCTTTCTGACTACAGTGATGTAAGTAGATAGCAAAATACTGGATTTTGCACATGCTGCCCTAAGAAATCA
CTGCTGCCATTGTAGTTTGTCTGATTTGTCTGATTTTATATTTGATTATTTGGGCTTGAGTGAAAGGTAGATTTA
TTTCCATTTGCAGGTGTTGCACATAAAACACTCCCTCTTTATAAGAAAATCATAAATGCATATAAAATAGAAAA
TATTTGGAGATTGCTTATCTGAAAGTCTTGCTTTCTTATACACATGGTTCTCTCATATTAAGCCTGGTAGTAAC
TTTTAGTGTAATTACCTTTAGCACTTCAAAGACGAGGAAGTAAGGAAGGGAATGCAAGACTAGTGCATAAAATG
CAATAGGTGTCATATGTACAGCATTCTTCTTAGAGTTGCCTTTTCATCCCAATTACAGTGAGTCTGATTTCCATC
CTGTATTTGCATAATACTTGTCTTAAATAAAAGCTTTTATGATTGGGAATTTATCTGCCTAATCAGACTTATTA
TTGAGACGTCAATGGGACGCATTTTTCTGTTGAGCTATGCAGTCGTCAAAACAGCGATAGACAGCATAGGAGGTT
TGAAGCAGAAATGAAATGTGTTATTAGAGCCAATGTTGTACATAGAGCATTTCCTACTATTGCTGAATGGGAATG
ATTAAAAACAAGGTATTTTTCGGGCCAGGCGGTGGCTCACGCTTGTAATCGCAGCACTTTGGGAGGCTGAGGCAG
GAGGATCACTTGAGCCCAGGAGTTCAAGACTAGCCTAGGCAACATAGTGAGACCCTGTCTCTACTAAAAATAAAT
TTAAAAAAAATTAGCTGAGTGTGGTGGTGCATGCATGTAGTTCCAGCTACTCAGGAGGCTGAGGCTAGAGGATCC
TTGAGCCCAGGAGGTTGAGGCTGCAGTGAGGTGTGATTGCGCCACTGCATTCCAGCTTGGGCGACAGAGCGAGAC
CCAGTCTCAAAAAAAAAAAAAAGTATTTTCTCTTACCGTTACAGTATTCTGATTATATTACTGACACAGTCAAA
ATGATTAACTGTACAACCTGTATCTGCTGGGTGTTCTGTTATCATATTGTAACAGCTTTAAAAATATTTATA
TTTTAAAACTGTATGTGACATTAATATGCCTAATGATTAAAAATTATAGTGATGAAATAACAAA

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FIGURE 4479

GCTGCAACACCGAGCGGAGGAGGCAGGAACCGGAGCGCGAGCAGTAGCTGGGTGGGCACCACGGCTGGGATCACC
ACCATTGAGGCGGTGAAGCGCAAGATCCAGGTTCTGCAGCAGCAGGCAGATGATGCAGAGGAGCGAGCTGAGCGC
CTCCAGCAAGAAGTTGAGGGAGAAAGGCGGGCCAGGAGCGCCTGGCCACTGCCCTGCAAAAGCTGGAAGAAGCA
GAAAAAGCTGCTGGTGAGAGTGAGAGAGGTATGAAGGTTATTGAAAACCGGGCTTTAAAAGATGAAGAAAAGATG
GAACTCCAAGAAGTCCAAGTCAAGAAGCTAAGCACATTGCAGAAGAGGCAGATAGGAAGTATGAAGAGGTGGCT
CGTAAGTTGGTGACCATGAAGGAGACTTGGAACGCACAGAGGAACGAGCTGAGCTGACAGAGTCCCGTTGCCGA
GAGATGGATGAGCAGATTGACTGATGGACCAGAACCTGAAGTGTCTGAGTGCTGCTGAAGAAAAGTACTCTCAA
AAAGAAGACAAATATGAGGAAGAAATCAAGATTTTTACTGATAAACCCAGGAGGCAGAGACCTGTGCTGAGTTT
GCTGAGCGATCGGTAGCCAAGCTGGAAGACAATTGATGACTTGGAAGATAAACTGAAATGCACCAAAGAGGAG
CACCTCTGTACACAAAGGATGCTGGACCAGACTCTGCTTGACCTGAATGAGATGTAGAATGCCCCAGTCCCACCC
TGCTGCTGCTCCTCCCTGTGACCCAGACTCCGCCTGAGGCCAGCCTGCCAGAAGCTGACCTTTAACTGAGGGCTG
ATCTTTAACTGGAAGGCTGCTTTCTCCTTTCACCGCCCCCTCCTTCCCTGTGTCTTTTTCGCCAACTGTCTCTG
CCTTTCCCGGAGAAATCCAGCTGGGCTAGAGGCTGAGCACCTTTGGAAACAACATTTAAGGGAATGTGAGCACAA
TGCATAATGTCTTTAAAAAGCGTGTGTGATGTACACATTTTGTAATTACCTTTTTTGTGTGTTTGTAGCAAACA
TTTGTAACAATCCAAATAATCCACAGCCCTGAAGCAGCAATCAAATCCCTTTCTCACTTTTGGAAGGTGACT
TTTACCTTAATGCATATCCCTCTCCATAGAGGAGAGGAAAAGGTATAGGCTTGCTTGCTGAGAGCCAAACA
GAGCCAGGGAGACTCCACTGTGGGAAACCTCATTGCTCTGTACAAAGTACTAGCTAAACCAGAAAGGTGATTCC
AGGAGGAGTTAGCCCAACAACAACAAAAACAAAAATGTGCTGTTCAAGTTTTAGCTTTAAGATATCTTTGGATA
ATATTATTTCTATTTTTATTTTTTTCATTAGAAATGATCAAATTAAGATGGTTAAGACCTCTGAGACCAAACT
TTCTCTCATCTCTACCCCTCCCAACTGCTCACAGAACGGATCATGTCCCTTATGTTGAGGTGACCACTTAAT
TGCTTTCCTGCCTCCTTGAAAGAAAGAAGATTGTGTTTTCTCCACTGATTTAGCCATGTGAACTCATCTCATT
CCCTTTTCTGGGTTTCAAGCTGCTGTCTCTAGAAGTGCCATCTCATTGTGCTTCGTATCAGTCAGTGCTGGAGAA
ATCTTGAATAGCTTATGTACAAAACCTTTTTAAATTTTATATTATTTTAAACTTTGCTTCTTTGGGTTTGTGGCA
CCCTGGCCACCCCATGTGGCTGTGACAGCCTCTGCAGTCCGTGGGCTGGCAGTTTGCTGATCTGTTAAATTTCT
TTCCCTACCCAGTCCCCATTTTCTGGTAAGGTTTCTAGGAGGTCTGTTAGGTGTACATCCTGCAGCTTATTGGCT
TAAATGTACTCTCCTTTTATGTCGTCTCTTTGGGGCTGATTGGGAGAAAGAGAAATCAATAGTGCAACTGTTTT
GATACTGAATATTGACAAGTGCTTTTTTGAATAAAGAACCAGTCCCTCC

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FIGURE 4480

GGAGGAGGCAGGAACCGGAGCGCGAGCAGTAGCTGGGTGGGCACCACGGCTGGGATCACCACCATTGAGGCGGTG
AAGCGCAAGATCCAGGTTCTGCAGCAGCAGGCAGATGATGCAGAGGAGCGAGCTGAGCGCCTCCAGCAAGAAGTT
GAGGGAGAAAGGCGGGCCCGGAAACAGAGGTATGAAGGTTATTGAAAACCGGGCTTTAAAAGATGAAGAAAAGAT
GGAAC TCCAAGAACTCCAAC TCAAAGAAGCTAAGCACATTGCAGAAGAGGCAGATAGGAAGTATGAAGAGGTGGC
TCGTAAGTTGGTGACCATTGAAGGAGACTTGGAACGCACAGAGGAACGAGCTGAGCTGACAGAGTCCCGTTGCCG
AGAGATGGATGAGCAGATTAGACTGATGGACCAGAACCTGAAGTGTCTGAGTGCTGCTGAAGAAAAGTACTCTCA
AAAAGAAGACAAATATGAGGAAGAAATCAAGATTTTTACTGATAAACCCAAGGAGGCAGAGACCTGTGCTGAGTT
TGCTGAGCGATCGGTAGCCAAGCTGGAAAAGACAATTGATGACTTGGAAGATAAACTGAAATGCACCAAAGAGGA
GCACCTCTGTACACAAAGGATGCTGGACCAGACTCTGCTTGACCTGAATGAGATGTAGAAATGCCCCAGTCCCACC
CTGCTGCTGCTCCTCCCTTTTCCCGGAGAATCCAGCTGGGCTAGAGGCTGAGCACCTTTGGAAACAACATTTAAG
GGAATGTGAGCACAATGCATAATGTCTTTAAAAAGCGTGTGTGATG

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FIGURE 4481

MMQRSELSASSKKLREKGGPGNRGMKVIENTRALKDEEKMELQELQLKEAKHIAEEADRKYEEVARKLVTIEGDLE
RTEERAELTESRCREMDEQIRLMDQNLKCLSAAEEKYSQKEDKYEEEIKIFTDKPKEAETCAEFAERSVAKLEKT
IDDLEDKCLKCTKEEHLCTQRMLDQTLDDINEM

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FIGURE 4482

GGAGGCTGCAACACCGAGCGGAGGAGGCAGGAACCGGAGCGCGAGCAGTAGCTGGGTGGGCACCACGGCTGGGAT
CACCACCATTGAGGCGGTGAAGCGCAAGATCCAGGTTCTGCAGCAGCAGGCAGATGATGCAGAGGAGCGAGCTGA
GCGCCTCCAGCAAGAAGTTGAGGGAGAAAGGCGGGCCCGGAAACAGGCTGAGGCTGAGGTGGCCTCCTTGAACCG
TAGGATCCAGCTGGTTGAAGAAGAGCTGGATCGTCCTCAGGAGCGCCTGGCCACTGCCCTGCAAAAGCTGGAAGA
AGCAGAAAAAGCTGCTGGTGAGAGTGAGAGAGGTATGAAGGTTATTGAAAACCGGGCTTTAAAAGATGAAGAAAA
GATGGAACTCCAAGAACTCCAACCTCAAAGAAGCTAAGCACATTGCAGAAGAGGCAGATAGGAAGTATGAAGAGGT
GGCTCGTAAGTTGGTGACCATTGAAGGAGACTTGGAACGCACAGAGGAACGAGCTGAGCTGACAGAGTCTACTCT
CAAAAAGAAGACAAATATGAGGAAGAAATCAAGATTTTTACTGATAAACCCAAGGAGGCAGAGACCTGTGCTGAG
TTTGCTGAGCGATCGGTAGCCAAGCTGGAAAAGACA

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FIGURE 4483

ATGTCTAAGTCAGAGTCTCCTAAAGAGCCCGAACAGCTGAGGAAGCTCTTCATTGGAGGGTTGAGCTTTGAAACA
ACTGATGAGAGCCTGAGGAGCCATTTTGAGCAATGGGGAACGCTCACGGACTGTGTGGTAATGAGAGATCCAAAC
ACGAAGCGCTCCAGGGGCTTTGGGTTTGTACATATGCCACTGTGGAGGAGGTGGATGCAGCTATGAATGCAAGG
CCACACAAGGTGGATGGAAGAGTTGTGGAACCAAAGAGAGCTGTCTCCAGAGAAGATTCTCAAAGACCAGATGCC
CACTTAACTGTGAAAAAGATATTTGTTGGTGGCATTAAAGAAGACACTGAAGAACATCACCTAAGAGATTATTTT
GAACAGTATGGAAAAATTGAAGTGATTGAAATCATGACTGACAGAGGCAGTGGCAAGAAAAGGGGCTTTGCCTTT
GTAACCTTTGACGACCATGACTCCGTGGATAAGATTGTCATTTCAGAAATACCATACTGTGAATGGCCACAACCTGT
GAAGTTAGAAAAGCCCTGTCAAAGCAAGAGATGGCTAGTGCTTCATCCAGCCAAAGAGGGAGAATGCAAGGACCT
GAGCTTCTCTTCTCAAGCCCCTCACAGCGACTGGGCCTTTACAACCTCAATGTTTGAAGCTCTGGTACTGTTTAA

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[illegible]

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FIGURE 4485

CACATGTAAACTACTTGAACCTCCATTTTCATCTTTTTTTCATACCATCTCTAAGATTGCTGCCGCATTTGCTTGTTA
AACTGAAAGCATGTTTTCTTGCAAAGGCTCTATTGGAAGGAGCAGATCGAGGTCTTGGAGAAGCTCTTGGAGGCCT
CTTTGGAGGAGGTGGTCAGAGAAGAGAAGGAGGAGGAAGAAATATTGGAGGGATAGTTGGAGGAATTGTGAATTT
TATCAGTGAGGCTGCAGCAGCTCAGTATACTCCAGAACCGCCTCCCACTCAGCAGCATTTACCAGTGTGGAGGC
CTCAGAAAGTGAGGAAGTTAGGCGATTTCGGCAACAATTTACACAGCTGGCTGGACCAGACATGGAGGTGGGTGC
CACTGATCTGATGAATATTCTCAACAAAGTCCTTTCTAAGCACAAAGATCTTAAGACTGACGGTTTTAGTCTTGA
CACCTGCCGGAGCATTGTGTCTGTTCATGGACAGTGACACGACTGGTAAGCTGGGCTTTGAAGAATTTAAGTATCT
GTGGAACAACATCAAGAAATGGCAGTGTGTTTATAAGCAGTATGACAGGGACCATTCTGGGTCTCTGGGAAGTTC
TCAGCTGCGGGGAGCTCTGCAGGCCGCAGGCTTCCAGCTAAATGAACAACCTTTACCAAATGATTGTCCGCCGGTA
TGCTAATGAAGATGGAGATATGGATTTTAAACAATTTATCAGCTGCTTGGTCCGCCTGGATGCCATGTTTCGTGC
CTTCAAGTCTCTGGATAGAGATAGAGATGGCCTGATTCAAGTGTCTATCAAAGAATGGCTGCAGTTGACCATGTA
TTCCTGAAGTGGGAAGTGAAGAAGTCAAGATCCTCCCTGGAGGACAGGACTGAAAACCTTGCCAAGCTGTACACAG
TTGCTGATACCCTGTGCAACAGCTCTCATTTCTGGCAAGCTCTTTCACAACCCTACATATTTCTGATCATGTGC
TGCCTTTTACTGCTGAATTTAAACAGATATTTCTATAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 4486

MFLAKALLEGADRGLGEALGGLFGGGGQRREGGGRNIGGI VGGIVNFISEAAAAQYTPEPPPTQQHFTSVEASES
EEVRRFRQQFTQLAGPDMEVGATDLMNII LNKVLSKHKDLKTDGFSLDTCRSIVSVMDSDTTGKLGFEFEFKYLWNN
IKKWQCVYKQYDRDHSGSLGSSQLRGALQAAGFQLNEQLYQMIVRRYANEDGDMDFN NFISCLVRLDAMFRAFKS
LDRDRDGLIQVSIKEWLQLTMY S

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FIGURE 4487

CCTCGGCGTGCCCCAGGACCGGTAAAGTTCCTCTCGCCAGCCGCATCCATGCTTCTGGCGCGGATGAACCCGCA
GGTGACGCCCCGAGAACAACGGGGCGGACACGGGTCCAGAGCAGCCCCCTTCGGGCGCGCAAACTGCGGAGCTGCT
GGTGGTGAAGGAGCGCAACGGCGTCCAGTGCTGCTGGCGCCCGCGACGGCGACGCGCAGCCCCGGGAGACCTG
GGGCAAGAAGATCGACTTCTGCTGTCCGTAGTCGGCTTCGACGTGGACCTGGCCAACGTGTGGCGCTTCCCTA
CCTCTGCTACAAGAACGGCGGGTGCCTTCTTGATCCCGTACACACTGTTCTTATCATCGCGGGGATGCCCT
GTTCTACATGGAGCTGGCTCTGGGACAGTACAACGGGAGGGGGCTGCCACCGTTTGGAAAATCTGCCCATTTCT
CAAAGGCGTTGGCTATGCTGTATCTGATCGCCCTGTACGTTGGCTTCTACTACAACGTATCATCGCCTGGTC
ACTCTACTACCTCTTCTCCTCTTCAACCTCAACCTGCCCTGGACCGACTGTGGCCACACCTGGAACAGCCCCAA
CTGTACCGACCCCAAGCTCCTCAATGGCTCCGTGCTTGGCAACCACACCAAGTACTCCAAGTACAAGTTCACGCC
GGCAGCCGAGTTTATGAGCGTGGTGTCTGACCTTACGAGAGCAGCGGGATTATGACATCGGCCTGCCCA
GTGGCAGCTCTTGTCTGTCTGATGGTCTGTCATCGTCTTGTATTTAGCCTCTGGAAGGGGTGAAGACATC
AGGAAAGGTGGTGTGGATCACAGCCACGCTGCCTTACTTCGTGCTGTTCTGCTCCTGGTCCATGGCGTCACGCT
GCCCCGAGCCTCCAATGGCATCAATGCCTACCTGCACATCGACTTCTACCGCTTGAAAGAGGCCACGGTATGGAT
TGATGCCGCAACTCAGATATTTTTTCTTGGGGCTGGATTTGGAGTATTGATTGCATTTGCCAGTTACAACAA
ATTTGACAACAACCTGTTACAGGGATGCCCTGCTGACCAGCAGCATCAACTGTATCACCAGCTTCGTCTCTGGGT
CGCCATCTTCTCCATCCTTGGTTACATGGCCCCATGAACACAAGGTCAACATTGAGGATGTGGCCACAGAAGGAGC
TGGCCTAGTGTTCATCCTGTATCCAGAGGCCATTTCTACCTGTCTGGATCTACATTCTGGGCTGTTGTGTTTTT
CGTCATGCTCCTGGCGCTGGGCCTTGACAGCTCAATGGGAGGCATGGAGGCTGTATCACGGGCCTGGCAGATGA
CTTCCAGGTCTGAAGCGACACCGGAACTCTTACATTTGGCGTCACCTTCAGCACTTTCTTCTCGCCCTGTT
CTGCATAACCAAGGGTGGAAATTTACGTCTTGACCCTCCTGGACACCTTTGCTGCGGGCACCTCCATCCTTTTTGC
TGTCTCATGGAAGCCATCGGAGTTTCTGGTTTTATGGAGTGGACAGGTTTCAGCAACGACATCCAGCAGATGAT
GGGTTTCAGGCCGGGTCTATACTGGAGACTGTGCTGGAAGTTCGTACGTCTGCTTCTCTGTTGTTGTTGTT
GGTCAGCATCATCAACTTCAAGCCACTCACCTACGACGACTACATCTTCCCGCCCTGGGCCAACTGGGTGGGGTG
GGGCATCGCCCTGTCTCCATGGTCTGTTGCCATCTACGTATCTATAAGTTCTCAGCACGCGAGGGCTCTCT
TTGGGAGAGACTGGCCTATGGCATCACGCCAGAGAACGAGCACCACCTGGTGGCTCAGAGGGACATCAGACAGTT
CCAGTTGCAACACTGGCTGGCCATCTGAGCCTGCCTGGAGGAGAAGGAGGAACCCCCATGCCAATGTCCAGGTCA
CAGGCATCCGCTGCGCTCCACCTCGGACACCATCTTGGGATTCCTCCCCCTGGAAGTTGTCTTTCTGATCCTCT
CTTCTTTTCCCATTTACAAATGATTTCTGACTGTAGTTTTTGTTCACCTTCTGTGCATCTGGCCTGGGGCTGT
TAGCTCAGAGGAGAGGAGCAAAACAGGAAAATGACTT

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FIGURE 4488

MLLARMNPQVPENNGADTGPEQPLRARKTAELLVVKERNGVQCLLAPRDGDAQPRETWGKKIDFLLSVVGFAVD
LANVWRFPYLCYKNGGGAFLIPYTLFLIIAGMPLFYMELALGQYNREGAATVWKICPFFKGVGYAVILIALYVGF
YYNVI IAWSLYYLFSSFTLNLPWTD CGHTWNSPCTDPKLLNGSVLGNHTKYSKYKFTPAAEFYERGVHLHLESS
GIHDIGLPQWQLLLCLMVVVIVLYFSLWKGVKTSKGVVWITATLPYFVLFVLLVHGVTLPGASNGINAYLHIDFY
RLKEATVWIDAATQIFFSLGAGFGVLI AFASYNKFDNNCYRDALLTSSINCITSFVSGFAIFSILGYMAHEHKVN
IEDVATEGAGLVF ILYPEAISTLSGSTFWAVVFFVMLLALGLDSSMGGMEAVITGLADDFQVLKRHRKLFTFGVT
FSTFLLALFCITKGGIYVLTLLDTFAAGTSILFAVLMEAIGVSWFYGVDRFSNDIQQMMGFRPGLYWRLCWKFVS
PAFLLFVVVSIINFKPLTYDDYIFPPWANWVGWGIALLSSMVLVPIYVIYKFLSTQGS LWERLAYGITPENEHHL
VAQRDIRQFQLQHWLAI

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FIGURE 4489

GAACGTGTCGCCCTTCCAGGATGTGGCTCCCTGCTCTTGTCTGGCCACTCTCGCTGCTTCCGCGGCTTGGGGGCA
TCCGTCCCTCGCCACCTGTGGTGGACACCGTGCATGGCAAAGTGCTGGGGAAGTTCGTACAGCTTAGAAGGATTGCT
ACAGCCTGTGGCCATTTTCCTGGGAATCCCTTTTGCCAAGCCGCCTCTTGGACCCCTGAGGTTTACTCCACCGCA
GCCTGCAGAACCATGGAGCTTTGTGAAGAATGCCACCTCGTACCCTCCTATGTGCACCCAAGATCCCAAGGCGGG
GCAGTTACTCTCAGAGCTATTTACAAACCGAAAGGAGAACATTCTCTCAAGCTTTCTGAAGACTGTCTTTACCT
CAATATTTTACACTCCTGCTGACTTGACCAAGAAAAACAGGCTGCCGGTGATGGTGTGGATCCACGGAGGGGGGCT
GATGGTGGGTGCGGCATCAACCTATGATGGGCTGGCCCTTGCTGCCCATGAAAACGTGGTGGTGGTGACCATTCA
ATATCGCCTGGGCATCTGGGGATTCTTCAGCACAGGGGATGAACACAGCCGGGGGAACTGGGGTCACCTGGACCA
GGTGGCTGCCCTGCGCTGGGTCCAGGACAACATTGCCAGCTTTGGAGGGAAACCCAGGCTCTGTGACCATCTTTGG
AGAGTCAGCGGGAGGAGAAAGTGCTCTGTCTGTTCTTGTCTTGTCTCCATTGGCCAAGAACCTCTTCCACCGGGCCAT
TTCTGAGAGTGGCGTGGCCCTCACTTCTGTTCTGGTGAAGAAAGGTGATGTCAAGCCCTTGGCTGAGCAAATTGC
TATCACTGCTGGGTGCAAAACCACCACCTCTGCTGTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT
CTTGGAGACGACATTGAAAATAAATTCTTATCTCTGGACTTACAGGGAGACCCAGAGAGAGTCAACCCCTTCTG
GGCACTGTGATTGATGGGATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT
CCCTACATGGTTCGGAATTAACAAGCAGGAGTTTGGCTGGTTGATTCCAATGTTGATGAGCTATCCACTCTCCGAA
GGGCAACTGGACCAGAAGACAGCCATGTCACTCCTGTGGAAGTCCTATCCCCTTGTTTGCATTGCTAAGGAACTG
ATTCCAGAAGCCACTGAGAAATACTTAGGAGGAACAGACGACACTGTCAAAAAGAAAGACCTGTTCTCTGGACTTG
ATAGCAGATGTGATGTTTGGTGTCCCATCTGTGATTGTGGCCCGGAACACAGAGATGCTGGAGCACCACCTAC
ATGTATGAGTTTTCAGTACCGTCCAAGCTTCTCATCAGACATGAAACCCAAGACGGTGATAGGAGACCACGGGGAT
GAGCTCTTCTCCGTCTTTGGGGCCCCATTTTAAAAGAGGGTGCCTCAGAAGAGGAGATCAGACTTAGCAAGATG
GTGATGAAATTCTGGGCCAACTTTGCTCGCAATGGAAACCCCAATGGGGAAGGGCTGCCCCACTGGCCAGAGTAC
AACCAGAAGGAAGGGTATCTGCAGATTGGTGCCAACACCCAGGCGGCCAGAAAGCTGAAGGACAAAGAAGTAGCT
TTCTGGACCAACCTCTTTGCCAAGAAGGCAGTGGAGAAGCCACCCAGACAGAACACATAGAGCTGTGAATGAAG
ATCCAGCCGGCCTTGGGAGCCTGGAGGAGCAAAGACTGGGGTCTTTTGCGAAAGGGATTGCAGGTTTCAAGGCA
TCTTACCATGGCTGGGGAATTGTCTGGTGGTGGGGGACAGAGGCCATGAAGGAGCAAGTTTTGTATTT
GTGACCTCAGCTTTGGGAATAAAGGATCTTTTGAAGGCC

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FIGURE 4490

CTCCGCCAGGACCCCCGAGGGCGAGCGCCTGGGGGGCGCGGCCTTGCTCGCGGGAGCGCTGCTGAGGGAGAGTGG
TTCTAGTAAATACCGCTTGCTGTGTTTTGATGTTGGTGGCTAAGCTCATCCAGTGTATTGTGTTTGGCCCTCTTC
GAGTGAGTGAGAGACAGCATCTCAAAGACAAATTTTGGAAATTTATTTTCTACAAGTTTCATTTTTCATCTTTGGTG
TGCTGAATGTCCAGACAGTGGAGAGGTGGTCATGTGGTGCCTCTGGTTTGCCGGACTTGCTCTTTCTGCACCTGA
TGGTTCAGCTCTGCAAGGATCGATTTGAATATCTTTCCTTCTCGCCACACGCGCGATGAGCAGCCACGGTCGAG
TCCTGTCCCTGTGGTTGCCATGCTGCTTTCCTGCTGTGGACTGGCGGCCGTCTGCTCCATCACCGGCTACACCC
ACGGAATGCACACCTTGGCTTTCATGGCTGCAGAGTCTCTTCTTGTGACAGTGAGGACTGCTCATGTGATTTTAC
GATACGTAATTCACCTCTGGGACCTCAACCACGAAGGGACGTGGGAAGGAAAGGGGACGTATGTCTATTACACAG
ACTTGTGTCATGGAGCTCACTCTCCTGTCCCTGGACCTCATGCACCATATTACATGTTGTTATTTGGCAACATCT
GGTTATCCATGGCCAGCCTGGTCATCTTTATGCAGCTGCGTTACCTGTTTTCATGAGGTGCAACGTCGAATTCGTC
GGCACAAGAACTATCTACGTGTGGTTGGAACATGGAGGCCAGGTTTGCAGTTGCAACTCCAGAGGAGCTGGCTG
TCAACAATGACGACTGTGCCATCTGTTGGGACTCCATGCAGGCTGCGCGGAAACTGCCCTGTGGACATCTTTTCC
ACAACCTCCTGTCTTCGTTCTGGCTAGAACAAGACACCTCCTGTCCAACATGCAGAATGTCTCTTAATATTGCCG
ACAATAATCGTGTGAGGGAAGAACATCAAGGAGAGAACTTGGATGAGAATTTGGTTCTGTAGCAGCAGCCGAAG
GAGAGCTTCGCTTAAACCAACACAATCACTTCTTCCATTTTCGATGGGTCTCGGATTGCGAGCTGGCTGCCGAGTT
TTTCGGTTGAAGTGATGCACACCACCAACATCTTGGCATTACGCAGGCCAGCAACTCCAGCTCAATGCAATGG
CTCATCAGATTCAAGAGATGTTTCCCCAGGTTCCATACCATCTGGTACTGCAGGACCTCCAGCTGACACGCTCAG
TTGAAATAACAACAGACAATATTTTGAAGGACGGATTCAAGTACCTTTTCTTACACAGCGGTGAGATAGCATCA
GACCTGCATTGAACAGTCTGTGGAAAGGCCAGTCAGCAGGAAGAGGGGAGAACTTCTGCTCAGACCGAGC
GTGTGCCACTGGACCTCAGTCTCGCTGCGCTGGAGGAGACGCTGGACTTCGGCGAGGTGGAAGTGAGCCCCAGTGAGG
TGGAAGACTTTCGAGGCTCGTGGGAGCCGCTTCTCCAAGTCTGCTGATGAGAGACAGCGCATGCTGGTGCAGCGTA
AGGACGAACTCCTCCAGCAAGCTCGCAAACGTTTCTTGAACAAAAGTTCTGAAGATGATGCGGCCTCAGAGAGCT
TCCTCCCCCTCGGAAGGTGCGTCTCTGACCCCGTGACCTGCGTGAAGGATGCTGGCTGCCGCCGCGGAACGGA
GGCTTCAGAAGCAGCAGACCTCCTAGCGCTCCCTTGCCCTTCTCAGCTGCCTCCTGCGCCCTGTGCCCGACTGAC
TGGAGGAGGCTGTCCCAATTCTGCCCGCTCCATGGAAAAGCGGGCTTGACTGCATTGCCGCTGTATAAAGCATG
TGGTCTTATAGTGTGTTGGACAGCTGATAAATTTAATCCTTCTTGTGTAATACTTTCTATGTGACATTTCTCTTCCC
CTTAGAAACACTGCAAAATTTAAGTGTAGGTATGATCTCTTCTGGTGTGACTGGACTGCTTGGGGTGGGGGACG
ATCAGGAGGAAGTGAGCAGTCGCTGCCTGCAGCAGGCAGCTTCTACTCCTGCCTCATGCGTACGTCCCACAAAT
GCAGGTGTCTGAGCACCACACCCAGTGGGAAGAGTGTGGGGGAGGCGCACAGTGTGAGCCCCGCCCCACGTCTGT
GGGGTAACATCTGTTATCAAACCTGCTGTGCTTGTGTTGTGGAAGCATGTAGACTGTGCCAGAGGCCAGACCCACGGG
CTCATGCACCCCTGAGCCAGCAGGGCATCTTGGAAAAGGAACCTTGGTTTCGATACCTGGAGCAGAGGAGGGGAA
AGTCCAGGGCTATAGGGTGTGATGAAGTCACCCCTTCTGTCCCACTACATCTGGGACTGACTTTCCGAGCCTCC
AGTCCAAAGCCGGCTTGATTTCCGTGAACCTGCTGCTCCTGCATCTCATGAGTGTGCCCCATGGGTCCCTCCC
CTCTCAGCATTTCTTGTCCCGTCTGGACCTGGGGAGTGGTTAGGCAGCAAGCTTTGGTTTATGGTTTTTCATTCA
TTGGTGAAGTAAATTAGGCAGTGCTAAAGCCTGTGGGTTTGGTCTTGAACAAGATGTGGGCCTTGCAAGATGGG
AGAGTAAACCTTGAAGGGCTTTATTAAAGAAATAAAAAAGAACTTTTGTATCTTTTATCCTGGGAGCACTGCGTT
TTCTAGCTGTGTTATTCTGTTTAAATTCAGCAGAGAAGGTAAGGTGTGAACCTACCTGCCTTGGAGAGGGCCC
AGGTCCCAAATCTCTTCAAATTTCTTACATGTTTAACTTTAAGGATTTGAACCATGAAGTCATAGGTTACAGACC
TCAGTTTTATGCCCCATTGGATTACTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTACTCTTTGAAAGCTTTGTTT
TGTGGTAGTCCTTTTGGGAAGAATCCAGTATTATCCACAATTATTGGCAAAGTTAAATGTATTTTACATAACGG
AAAGTTTTTGAATGTTGAAAAGTAATTGAAAAGGTGATAGGTAAATTTTATAGGCAAAGATAATTTATTTCAT
AAATCTTTCAAAGCCTTACCTTGAATGCTGTTAGTAAATTTCTGTGATTTTTTTTTTTTAAATTTGTTTTGCTGA
GAGCATAGCTATTTGTTTTTATTGTAAA

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FIGURE 4491

CTTGTTTCGICTCACTGGGTGTGAGCTCCAGCATCCCCCTTTGCTCGAAATGGACCCCAACTGCTCTTGCGCCACTGG
TGGCTCCTGCACGTGCGCCGGCTCCTGCAAGTGCAAAGAGTGCAAATGCACCTCCTGCAAGAAGAGTGAGTGCGG
GGCCATCTCCAGGAATCTGGGGCTGTGGGCTCAGGTTGGGAGGGAACTCAAGGCTGGCCCTGAGTGCATCCTTCTG
GGGAACTGGGGCTTTCTTTGCCCTCATTGCCCCGTGTCATTCCCTCTCCAGGCTTTCTGCCCTAAATTCAGATGGGG
CAGGACAGCATTTTTCTCGTGGGACACAAACCCCAACTGTACCCCTATGGTTTCAGAACAGAGCTGTGCCAGAC
GAAAAAAGCATCCTCTGGGTCTGGGTTCTGAGCTCGAGCCAGGCTTGCTATTAGGGCAGGGAGGTGCCCGGTCA
AGTCTACTGCCACCTCTCACTCTCCCCTTCTTCCCCAGGCTGCTGTTCTGCTGCCCCGTGGGCTGTGCCAAGTG
TGCCCAGGGCTGCGTCTGCAAAGGGGCATCGGAGAAGTGCAAGCTGCTGTGCCTGATGTGGGAACAGCTCTTCTCC
CAGATGTAAATAGAACAACCTGCACAACCTGGATTTTTTTAAAAATACAACACTGAGCCATTTGCTGCATTTCTT
TTTATACTAAATATGTGACTGACAATAAAAAACAATTTTGACTTT

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FIGURE 4492

MDPNCSCATGGCTCAGSCKCKECKCTSCCKSECGAISRNGLWLRLGGNSRLALSASFSGTGLSLPSLPVSFPL
QAFCPKFRWGRTAFFSWDTNPCTPYGFRTELCQTKKSILWVWLSSSQACY

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FIGURE 4493

CCGCTGCGTGTTTTCTCTTGATCGGGAACTCCTGCTTCTCCTTGCCTCGAAATGACCCCAACTGCTCCTGCTC
GCCTGTTGGCTCCTGTGCCTGTGCCGGCTCCTGCAAATGCAAAGAGTGCAAATGCACCTCCTGCAAGAAGAGCTG
CTGCTCCTGCTGCCCTGTGGGCTGTGCCAAGTGTGCCCAGGGCTGCATCTGCAAAGGGACGTCAGACAAGTGCAG
CTGCTGTGCCATGATGCCAGGACAGCTGTGCTCTCAGATGTAAATAGAGCAACCTATATAAACCTGGATTTTTTTT
TTTTTTTTTTTTTGTACAACCCTGACCCGTTTGCTACATCTTTTTTCTATGAAATATGTGAATGGCAATAAATTC
ATCTAGACT

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FIGURE 4494

MDPNCSCSPVGSCACAGSCKCKECKCTSCCKSCCSCPVGCAKCAQGCICKGTSDKCSCCA

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FIGURE 4495

CTGAGCGACAGCAAGTGCAGCGGGCTCCTACCCCGGGTGAGGGGTGGCCTCCGCGTGGGATCGTGCCCTCTTCAG
CCCCTCCTGTCCCCGACATCACGTGTATTCCGCACGTCCCCTCCGCGCTGTGTGTCTACTGAGACGGGGAGGCG
TGACAGGGCCCCGGGTCCCTTCTCAGTGGTGCTCTGTGCTTCAGGGCAAGCTCCCCGTCTCCGGGCGCACTTCCCT
CGCCTGTGTTTCGGTCCATCCTCCTTTCTCCAGCCTCCTCCCCTCGCAGGTGGGATCGTCGGTGGGACCGGAGCGC
GGGCGGGCGCGCCCCCGGGACCATGGCCGGGTCCGACACCGCGCCCTTCCTCAGCCAGGCGGATGACCCGGAC
GACGGGCCAGTGCTGGCACCCCGGGGTTCAGGGGTCCACGGGGAACCCGAAGTCCGAGGAGCCCGAGGTCCCG
GACCAGGAGGGGCTGCAGCGCATCACCGGCCTGTCTCCCGGCCGTTTCGGCTCTCATAGTGGCGGTGCTGTGCTAC
ATCAATCTCCTGAACTACATGGACCGCTTCACCGTGGCTGGCGTCCTTCCCGACATCGAGCAGTTCTTCAACATC
GGGGACAGTAGCTCTGGGCTCATCCAGACCGTGTTCATCTCCAGTTACATGGTGTTGGCACCTGTGTTTGGCTAC
CTGGGTGACAGGTACAATCGGAAGTATCTCATGTGCGGGGGCATTCGCTTCTGGTCCCTGGTGACACTGGGGTCA
TCCTTCATCCCCGGAGAGCATTCTGGCTGCTCCTCCTGACCCGGGGCCTGGTGGGGGTTCGGGAGGCCAGTTAT
TCCACCATCGCGCCCACTCTCATTGCCGACCTCTTTGTGGCCGACCAGCGGAGCCGGATGCTCAGCATCTTCTAC
TTTGCCATTCCGGTGGGCAGTGGTCTGGGCTACATTGCAGGCTCCAAAGTGAAGGATATGGCTGGAGACTGGCAC
TGGGCTCTGAGGGTGACACCGGTCTAGGAGTGGTGGCCGTTCTGCTGCTGTTCTCGGTAGTGCGGGAGCCGCCA
AGGGGAGCCGTGGAGCGCCACTCAGATTTGCCACCCCTGAACCCACCTCGTGGTGGGCAGATCTGAGGGCTCTG
GCAAGAAATCCTAGTTTCGTCTGTCTTCCCTGGGCTTCACTGCTGTGGCCTTTGTACGGGCTCCCTGGCTCTG
TGGGCTCCGGCATTCTGTGCGTTCCCGCGTGGTCTTGGGGAGACCCACCCCTGCCTTCCCGGAGACTCCTGC
TCTTCTCTGACAGTCTCATCTTTGGACTCATCACCTGCCTGACCGGAGTCTGGGTGTGGGCCTGGGTGTGGAG
ATCAGCCGCCGGCTCCGCCACTCCAACCCCGGGCTGATCCCCTGGTCTGTGCCACTGGCCTCCTGGGCTCTGCA
CCCTTCTCTTCTGTCCCTTGCCCTGCGCCCGTGGTAGCATCGTGGCCACTTATATTTTCATCTTCATTGGAGAG
ACCTCCTGTCCATGAACTGGGCCATCGTGGCCGACATTCTGCTGTACGTGGTGATCCCTACCCGACGCTCCACC
GCCGAGGCCTTCCAGATCGTGCTGTCCCACCTGCTGGGTGATGCTGGGAGCCCCTACCTCATTGGCCTGATCTCT
GACCGCCTGCGCCGGAAGTGGCCCCCTCCTTCTTGTCCGAGTTCCGGGCTCTGCAGTTCTCGCTCATGCTCTGC
GCGTTTGTGGGGCACTGGGCGGCGCAGCCTTCTGGGCACCGCCATCTTCATTGAGGCCGACCGCCGGCGGGCA
CAGCTGCACGTGCAGGGCTGCTGCACGAAGCAGGGTCCACAGACGACCGGATTGTGGTGCCCCAGCGGGGCCG
TCCACCCGCGTGCCCGTGGCCAGTGTGCTCATCTTGAGAGGCTGCCGCTCACCTACCTGCACATCTGCCACAGCTG
GCCCTGGGCCCCACCCACGAAGGGCCTGGGCCTAACCCCTTGGCCTGGCCAGCTTCCAGAGGGACCCCTGGGCCG
TGTGCCAGCTCCCAGACACTACATGGGTAGCTCAGGGGAGGAGGTGGGGTCCAGGAGGGGGATCCCTCTCCACA
GGGGCAGCCCCAAGGGCTCGGTGCTATTTGTAACGGAATAAAATTTGTGCCAGAAAAAAAAAAAAA

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FIGURE 4496

MAGSDTAPFLSQADDPDDGPVPGTPGLPGSTGNPKSEEPVDPQEGLRITGLSPGRSALIVAVLCYINLLNYMD
RFTVAGVLPDIEQFFNIGDSSSGLIQTVFISYMLAPVFGYLGDRYNRKYLMCGGIAFWSLVTLGSSFIPEGEHF
WLLLLTRGLVGVGEASYSTIAPTILIADLFVADQSRMLSIFYFAIPVGSGGLGYIAGSKVKDMAGDWHWALRVTPG
LGVVAVLLLFLVVREPPRGAVERHSDLPLNPTSWWADLRALARNPSFVLSSLGFTAVAFVTGSLALWAPAFLLR
SRVVLGETPPCLPGDSCSSSDSLIFGLITCLTGVLGVGLGVEISRRLRHSNPRADPLVCATGLLGSAPFLFLSLA
CARGSIVATYIFIFIGETLLSMNWAIVADILLYVVIPTRRSTAEAFQIVLSHLLGDAGSPYLI GLISDRLRRNWP
PSFLSEFRALQFSLMLCAFVGALGGAFLGTAIFIEADRRRAQLHVQGLLHEAGSTDDRIVVPQGRGRSTRVPVAS
VLI

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FIGURE 4497

GGCGCGGAGGAGGAGGTTCCCGGAAGCCACGCGCAGCTGGAGCAGCGGCGACCGCAGCTGGAGGCCCGGAGCGCC
TGCGGGGCTGGCAGAGGCGAGGGAGGTTGCGGGTAGGAAGGGCGGACTGCGCGCGCCCCCTGCGTCCCGCGCACCC
TCGGGGCCGGTCCATGCTCCCGACGGCTGCGGGCTTACGATCTGGGGCCAGGTTGGGGCGGCGGGGTCCAGGGC
GCAGGTGGTGGCGCCGATGCGCCGGGCGGAGGCTGAGGCCGCGCTGCGGGGCTGGGACAGCACCTGGCATCTCCA
GAGCAGGCCCCGGGGCAGCAAGGGAGGCGCCGCGATGCCAGACGAAAATATCTTCCTGTTCTGCGCCCAACCTCATC
GGTTATGCCCCGATTGTCTTCGCCATCATTTCTTTCTACTTCATGCCCTGCTGCCCCCTCACGGCCTCCTCCTTC
TACCTGCTCAGCGGCTGCTGGACGCTTTCGATGGACACGCTGCTCGCGCTCTTAATCAAGGAACCCGGTTTGGG
GCCATGCTGGACATGCTGACGGACCGCTGCTCCACCATGTGCCTGTTGGTCAACCTGGCCCTGCTGTACCCTGGA
GCCACGCTGTTCTTCCAAATCAGCATGAGTTTGGATGTGGCCAGTCACTGGCTGCACCTCCACAGTTCTGTGGTC
CGAGGCAGTGAGAGTCACAAGATGATCGACTTGTCCGGGAATCCGGTGCTTCGGATCTACTACACCTCGAGGCCCT
GCTCTGTTACCTTGTGTGCTGGGAATGAGCTCTTCTACTGCCTCCTCTACCTGTTCCATTTCTCTGAGGGACCT
TTAGTTGGCTCTGTGGGACTGTTCCGGATGGGCCTCTGGGTCACTGCCCCCATCGCCTTGCTGAAGTCGCTCATC
AGCGTCATCCACCTGATCACGGCCGCGCCGAACATGGCTGCCCTGGACGCAGCAGACCGCGCCAAGAAGAAGTGA
CGCTGGAGCCCCGGGTCTGGCTGCCCCACCTGCCCTGGGAGTCTTGCTGTGCCACACAGCTCCCCACCCCTGCT
AGGAGGTCCCAGTCTCACGCCTTCCTCATGTGTTGTTCTACCTGCTGGGATGGGGGTACGCCTCTCTTTGGTGAC
GTCACGTTCTCTGGGATCCTGAGGACCCGGGCCTCAAATCAGGGAGGATACGCGGGAGGCCCCCTCCATCCAGGC
GGTGCTCCTGGGGTGCCGGGACCGGGCAGTGTACACCCTGCCTGCTCAGTCCTGGGGTCCGAGATGCTAGGGAC
GCTTGAGTGAGGGAGGTGGTGTGAGGGCCAGGTTTCTGAAAGGCGGGAGTCAGACCTCCGCCCCAGCCAGAGC
AAGCTTGGGGCACCATGCCCCAGGAGGGAAGAAGCCATCCACAGCCTTCCCTGTCACCGGCTCCTCTGCTCCTGCCT
ACCCTGGTCTGGCGGGACTTCACTATTTGACTTGGTTTCCTTTTCCAGATATTCTTGGCTCAGGGCCTGGGTTGAG
GGAGCTTAGGGAAGGACGTCCGTCTGGGTGCTTTTCTCCAGTTTGCTGGCTGGCTTCTCCGTCTACCCACAGTG
ACCTCACAGAGAGGCCCTCCTGCCACCCATGCTCATGTGGTGTCCCCACCGCCCACTTGTTTGATGTCACTGACT
GTCTACATGATTTTATATTCTTGATATTTTCTACCCTCACTAGAATGTAACTCCATGAAGGCACAGACTTTTCT
TGTTCTCTTCTCTATCCCTAGAGTAAGACCAACTTGAACCTGGCATATAGTAGCTGCTTAATAAACTACTCGTCTG
TC

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FIGURE 4498

TTCCCCATCTGAGGCGTTTGTGTCAGCTACCTGCACTTCTAGATGCTCCCCAGGTTTCATCTGTGTCTCTCCCC
CACCTACCAGTTCATCTTCTTGTGAGCCCTGGGCTTAGGAGTCACCATGGCAACTGAAGAGTTTCATCATCCGCATC
CCCCATAACCACTATATCCATGTGTGTCGACCAGAACAGCAACGTGTCCCGTGTGGAGGTTCGGGCCAAAGACCTAC
ATCCGGCAGGACAATGAGAGGGTACTGTTTGTCCCCCATGCGCATGGTGACCGTCCCCCAGCTCACTACTGCACA
GTGGCCAACCTGTGTCTCGGGATGCCAGGGCTTGGTGCTGTTTGATGTACAGGGCAAGTTCGGCTTCGCCAC
GCTGACCTCGAGATCCGGCTGGCCCAGGACCCCTTCCCCCTGTACCCAGGGGAGGTGCTGGAAAAGGACATCACA
CCCCTGAGGTGGTTCTGCCCCAACACTGCCCTCCATCTAAAGGCGCTGCTTGATTTTGAGGATAAAGATGGAGAC
AAGGTGGTGGCAGGAGATGAGTGGCTTTTCGAGGGACCTGGCACGTACATCCCCCGGAAGGAAGTGGAGGTCTGTG
GAGATCATTCAGGCCACCATCATCAGGCAGAACAGGCTCTGCGGCTCAGGGCCCCGAAGGAGTGTGGGACCGG
GACGGCAAGGAGAGGGTGACAGGGGAAGAATGGCTGGTCACCACAGTAGGGGCGTACCTCCCAGCGGTGTTTGAG
GAGTTCTGGATTGTTGGTGACGCCGTCTCCTTACGGAAAAGACAGCCCTGCACCTCCGGGCTCGGCGGAACCTC
CGGGACTTCAGGGGAGTGTCCCGCCGCACTGGGGAGGAGTGGCTGGTAACAGTGCAGGACACAGAGGCCACGTG
CCAGATGTCCACGAGGAGGTGCTGGGGGTTGTGCCCATCACCACCCCTGGGCCCCACAACACTACTGCGTGATTCTC
GACCTGTCCGACCGGATGGCAAGAATCAGCTGGGGCAGAACGCGGTGGTCAAGGGAGAGAAGTCTTTTTCTCTC
CAGCCAGGAGAGCAGCTGGAACAAGGCATCCAGGATGTGTATGTGTCTGTGCGAGCAGCAGGGGCTGCTGCTGAGG
GCCCTGCAGCCCTTGAGGAGGGGGAGGATGAGGAGAAGGTCTCACACCAGGCTGGGGACCACTGGCTCATCCGC
GGACCCCTGGAGTATGTCCATCTGCCAAGTGGAGGTGGTGGAGGAGCGCCAGGCCATCCCTCTAGACGAGAAC
GAGGGCATCTATGTGCAGGATGTCAAGACCGGAAAGGTGCGCGCTGTGATTGGAAGCACCTACATGCTGACCCAG
GACGAAGTCTGTGGGAGAAAGAGCTGCCTCCCGGGTGGAGGAGCTGCTGAACAAGGGCAGGACCTCTGGCA
GACAGGGGTGAGAAGGACACAGCTAAGAGCCTCCAGCCCTTGCGCGCCCGGAACAAGACCCGTGTGGTCACTAC
CGCGTGCCTGCGTGGTCTGAGGAGCAGTTTACAGTGTGTGCTCCTCTCAGCTGGGCGGCCCAAGCGTCCCCATGCC
CTGGTGTGCTGGTCTGCTGCTGGGGCTGACTTCTTACAGACGTATCACCATCGAAACGGCGGATCATGCC
CGCGTGCCTGCTGCTGCTGGGGCTGACTTCTTACAGACGTATCACCATCGAAACGGCGGATCATGCC
AGGCTGCAACTGCAGCTGGCCTACAACCTGGCACTTTGAGGTGAATGACCGGAAGGACCCCAAGAGACGGCCAAG
CTCTTTTCAGTGCCAGACTTTGTAGGTGATGCCTGCAAAAGCCATCGCATCCCGGGTGCGGGGGGCCGTGGCCTCT
GTCACTTTCGATGACTTCCATAAGAACTCAGCCCGCATCATTCGCACTGCTGTCTTTGGCTTTGAGACCTCGGAA
GCGAAGGGCCCCGATGGCATGGCCCTGCCAGGCCCGGGACCAGGCTGTCTTCCCCCAAACGGGCTGGTGGTC
AGCAGTGTGGACGTGCAGTCAGTGGAGCCTGTGGATCAGAGGACCCGGGACGCCCTGCAACGCAGCGTCCAGCTG
GCCATCGAGATCACCACCAACTCCCAGGAAGCGCGGCCAAGCATGAGGCTCAGAGACTGGAGCAGGAAGCCCGC
GGCCGGCTTGAGCGGCAGAAAGATCCTGGACCAGTCAGAAAGCCGAGAAAGCTCGCAAGGAACTTTGGAGCTGGAG
GCTCTGAGCATGGCCGTGGAGAGCACCGGACTGCCAAGGCGGAGGCCGAGTCCCGTGCAGGAGCAGCCCGGATT
GAGGGAGAAGGGTCCGTGCTGCAGGCCAAGCTAAAAGCACAGGCCTTGGCCATTGAAACGGAGGCTGAGCTCCAG
AGGGTCCAGAAGGTCCGAGAGCTGGAACCTGGTCTATGCCCGGGCCAGCTGGAGCTGGAGGTGAGCAAGGCTCAG
CAGCTGGCTGAGGTGGAGGTGAAGAAGTTCAAGCAGATGACAGAGGCCATAGGCCCCAGCACCATCAGGGACCTT
GCTGTGGCTGGGCCTGAGATGCAGGTAAACTGCTCCAGTCCCTGGGCCTGAAATCAACCCTCATCACCATGGC
TCCACTCCCATCAACCTCTTCAACACAGCCTTGGGCTGCTGGGGATGGGGCCGAGGGTCAGCCCTGGGCAGA
AGGGTGGCCAGTGGGCCAGCCCTGGGGAGGGGATATCCCCCAGTCTGCTCAGGCCCTCAAGCTCCTGGAGAC
AACCACGTGGTGCCTGTACTGCGCTAACTCCTGATTAATAACAATGGAAGTTTCTGGGCAAAAAAAAAAAAAAA
GTTTCCA

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FIGURE 4499

MATEEFIIRIPPYHYIHVLDQNSNVS RVEVGPKTYIRQDNERNVLFAPMRMVTVP
PRHYCTVANPVS RDAQGLVLF
DVTGQVRLRHADLEIRLAQDPFPLYPGEVLEKDITPLQVVL PNTALHLKALLDFEDKDGKVVAGDEWLFEGPGT
YIPRKEVEVVEIIQATII RQNQALRLRARKECWDRD GKERTGEEWLVTTVGAYLPAVFEEVLDLVDAILTEKT
ALHLRARRNFRD FRGVSRRTGEEWLVTVQDTEAHVPDVHEEVLGVVPIITLGP HNYCVILDPVGPDGKNQLGQKR
VVKGEKSFFLQPGEQLEQGIQDVYVLSEQQGLLLRALQPLEEGEDEEKVSHQAGDHWLIRGPLEYVPSAKVEVVE
ERQAIPLDENEGIYVQDVKTGKVRAVIGSTYMLTQDEVLWEKELPPGVEELLNKGQDPLADRGEKDTAKSLQPLA
PRNKTRVVS YRVP HNAAVQVYDYREKRARVVFGEPLVSLGPEEQFTVLSLSAGRPKRPHARRALCLLLGPDFFTD
VITTIETADHARLQLQLAYNWHFEVNDRKDPQETAKLFSVPDFVGDACKAIASRVRGAVASVTFDDFHKNSARIIR
TAVFGFETSEAKGPDGMALPRPRDQAVFPQNGLVVSSVDVQSVEPVDQRTDALQRSVQLAIEIT TNSQEAAKH
EAQRLEQEARGRLERQKILDQSEAEKARKELLELEALSMAVESTGTAKAEAESRAEAARIEGEGSVLQAKLKAQA
LAIETEAE LQRVQKVRELELVYARAQLELEVSKAQQLAEEVEVKKFKQMTEAIGPSTIRD LAVAGPEMQVKLLQSL
GLKSTLITDGSTPINLFNTAFGLLGMGPEGQPLGRRVASGSPSPGEGISPQSAQAPQAPGDNHVVPVLR

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FIGURE 4500

AAAGGTTCCCCATCTGAGGCGTTTGTGTCAGCTACCTGCACTTCTAGATTTCATCTTCTTGTGAGCCCTGGGCTTA
GGAGTCACCAATGGCAACTGAAGAGTTTCATCATCCGCATCCCCCATACCACTATATCCATGTGCTGGACCAGAAC
AGCAACGTGTCCCGTGTGGAGGTCGGGGCCAAAGACCTACATCCGGCAGGACAATGAGAGGGTACTGTTTGCCCCC
ATGCGCATGGTGACCGTCCCCCACGTCACTACTGCACAGTGGCCAACCCTGTGTCTCGGGATGCCCAGGGCTTG
GTGCTGTTTGATGTACAGGGCAAGTTCGGCTTCGCCACGCTGACCTCGAGATCCGGCTGGCCAGGACCCCTTC
CCCCTGTACCCAGGGGAGGTGCTGGAAAAGGACATCACACCCCTGCAGGTGGTTCTGCCAACACTGCCCTCCAT
CTAAAGGCGCTGCTTGATTTTGAGGATAAAGATGGAGACAAGGTGGTGGCAGGAGATGAGTGGCTTTTCGAGGGA
CCTGGCACGTACATCCCCGGAAGGAAGTGGAGGTTCGTGGAGATCATTACAGGCCACCATCATCAGGCAGAACCAG
GCTCTGCGGCTCAGGGCCCCGAAGGAGTGCTGGGACCGGGACGGCAAGGAGAGGGTGACAGGGGAAGAATGGCTG
GTCACCACAGTAGGGGCGTACCTCCAGCGGTGTTTGAGGAGGTTCCTGGATTTGGTGGACGCCGTCATCCTTACG
GAAAAGACAGCCCTGCACCTCCGGGCTCGGCGGAACCTCCGGGACTTCAGGGGAGTGTCCCGCCGCACTGGGGAG
GAGTGGCTGGTAACAGTGCAGGACACAGAGGCCCACGTGCCAGATGTCCACGAGGAGGTGCTGGGGGTGTGTCCC
ATCACACCCTGGGCCCCACAACACTACTGCGTGATTCTCGACCCTGTTCGACCGGATGGCAAGAATCAGCTGGGG
CAGAAGCGCGTGGTCAAGGGAGAGAAGTCTTTTTCTCCAGCCAGGAGAGCAGCTGGAACAAGGCATCCAGGAT
GTGTATGTGCTGTTCGGAGCAGCAGGGGCTGCTGCTGAGGGCCCTGCAGCCCTGGAGGAGGGGGAGGATGAGGAG
AAGGTCTCACACCAGGCTGGGGACCACTGGCTCATCCGCGGACCCCTGGAGTATGTGCCATCTGCCAAAGTGGAG
GTGGTGGAGGAGCGCCAGGCCATCCCTCTAGACGAGAACGAGGGCATCTATGTGCAGGATGTCAAGACCGGAAAG
GTGCGCGCTGTGATTGGAAGCACCTACATGCTGACCCAGGACGAAGTCCTGTGGGAGAAAGAGCTGCCTCCCGGG
GTGGAGGAGCTGCTGAACAAGGGGCAGGACCCCTCTGGCAGACAGGGGTGAGAAGGACACTAAGAGCTCCAG
CCCTTGCGCGCCCCGGAACAAGACCCGTTGTGGTTCAGCTACCGCGTGCCCCACAACGCTGCGGTGCAGGTGTACGAC
TACCGAGAGAAAGCGAGCCCCGCGTGGTCTTCGGGCGCTGAGCTGGTGTGCTGCGTGGGTCTGAGGAGCAGTTACAGTG
TTGTCCCTCTCAGCTGGGCGGCCCCAAGCGTCCCCATGCCCGCGTGCGCTCTGCCTGCTGCTGGGGCCTGACTTC
TTCACAGACGTTCATCACCATCGAAAACGGCGGATCATGCCAGGCTGCAACTGCAGCTGGCCTACAACCTGGCACTTT
GAGGTGAATGACCGGAAGGACCCCCAAGAGACGGCCAAGCTCTTTTTCAGTGCCAGACTTTGTAGGTGATGCCTGC
AAAGCCATCGCATCCCGGGTGCAGGGGGGCGGTGGCCTCTGTCACTTTTCGATGACTTCCATAAGAAGCTCAGCCCGC
ATCATTTCGCACTGCTGTCTTTGGCTTTTGAGACCTCGGAAGCGAAGGGCCCCGATGGCATGGCCCTGCCCAGGCCC
CGGGACCAAGGCTGTCTTCCCCCAAAACGGGCTGGTGGTTCAGCAGTGTGGACGTGCAGTTCAGTGGAGCCTGTGGAT
CAGAGGACCCGGGACGCCCTGCAACGCAGCGTCCAGCTGGCCATCGAGATCACCACCAACTCCCAGGAAGCGGCG
GCCAAGCATGAGGCTCAGAGACTGGAGCAGGAAGCCCGCGGGCGGCTTGAGCGGCAGAAGATCCTGGACCAGTCA
GAAGCCGAGAAAGCTCGCAAGGAACCTTTGGAGCTGGAGGCTCTGAGCATGGCCGTGGAGAGCACCGGGACTGCC
AAGGCGGAGGCCGAGTCCCGTGCGGAGGCAGCCCGGATTGAGGGAGAAGGGTCCGTGCTGCAGGCCAAGCTAAAA
GCACAGGCCTTGGCCATTGAAACGGAGGCTGAGCTCCAGAGGGTCCAGAAGGTCCGAGAGCTGGAAGTTCAAGCAG
GCCCGGGCCAGCTGGAGCTGGAGGTGAGCAAGGCTCAGCAGCTGGCTGAGGTGGAGGTGAAGAAGTTCAAGCAG
ATGACAGAGGCCATAGGCCCCAGCACCATCAGGGACCTTGCTGTGGCTGGGCCTGAGATGCAGGTAAACTGCTC
CAGTCCCTGGGCCTGAAATCAACCTCATCACCGATGGCTCCACTCCCATCAACCTCTTCAACACAGCCTTTGGG
CTGCTGGGGATGGGGCCGAGGGTCAGCCCTGGGCAGAAGGTGGCCAGTGGGCCAGCCCTGGGGAGGGGATA
TCCCCCAGTCTGCTCAGGCCCCCTCAAGCTCCTGGAGACAACCACGTGGTGCCTGTACTGCGCTTAACTCCTGATT
AATACAATGGAAGTTTCTGGGCAAAAAAAAAAAAAAAAAAAGTTTCCA

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FIGURE 4501

MATEEFIIRIPPYHYIHVLDQNSNVSERVEVGPKTYIRQDNERNVLFAPMRMVTVPPRHYCTVANPVSRDAQGLVLF
DVTGQVRLRHADLEIRLAQDPFPLYPGEVLEKDITPLQVVLPNTALHLKALLDFEDKDGDKVVAGDEWLFEGPGT
YIPRKEVEVVEIIQATIIRQNQALRLRARKECWDRDGKERTGEEWLVTTVGAYLPAVFEEVLDLVDAILTEKT
ALHLRARRNFRDFRGVSRRTGEEWLVTVDTEAHVPDVHEEVLGVVPITTLGPHNYCVILDPVGPDKGNQLGQKR
VVKGEKSFFLQPGEQLEQGIQDVYVLSEQQGLLLRALQPLEEGEDEEKVSHQAGDHWLIRGPLEYVPSAKVEVVE
ERQAIPLDENEGIYVQDVKTGKVRVIGSTYMLTQDEVLWEKELPPGVEELLNKGQDPLADRGEKDTAKSLQPLA
PRNKTRVVSYRVPHNAAVQVYDYREKRARVVFGEPLVSLGPPEEQFTVLSLSAGRPKRPHARRALCLLGPDDFTD
VITIETADHARLQLQLAYNWHFEVNDRKDPQETAKLFSVPDFVGDACKAIASRVRGAVASVTFDDFHKNSARIIR
TAVFGFETSEAKGPDGMALPRPRDQAVFPQNGLVSSVDVQSVEPVDQRTDALQRSVQLAIEITTNSQEAANKH
EAQRLEQEARGRLERQKILDQSEAEKARKELELEALSMAVESTGTAKAEAESRAEAARIEGEGSVLQAKLKAQA
LAITEAEELQRVQKVRELELVYARAQLELEVSKAQQLAEEVEVKKFKQMTAIGPSTIRDLAVAGPEMQVKLLQSL
GLKSTLITDGSTPINLFNTAFGLLGMGPEGQPLGRRVASGSPSGEGISPQSAQAPQAPGDNHVVVPLR

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[illegible]

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FIGURE 4503

MSLARGHGDTAASTAAPLSEEGEVTSGLQALAVEDTGGPSASAGKAEDEGEGGREETEREGSGGEEAQGEVPSAG
GEEPAEEDSEDWCVPCSDDEVELPADGQPWMPPPSEIQRLYELLAHGTLELQAEILPRRPPTPEAQSEEEERSDE
EPEAKEEEEEKPHMPTEFDDEPVTPKDSLIDRRRTPGSSARSQKREARLDKVLSDMKRHKKLEEQILRTGRDL
FSLDSEDPSASPPLRSSGSSLFPRQRKY

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FIGURE 4504

TGCCGCCGCCTCTACGGTGGACACAGCGGCCCTGAAGCAGCCTCCGGCGCCCCCTCCGCCACCCCCGCCAGTGTC
GGCGCCCCGGGCCGAGGCCGCGCCCCCGCCTCCGGCGCCACTATCGCCGCGTCGGCGGCCACCGCCGTCGTAGC
CCCAACCTCGACGGTCGCCGTGGCCCCGGTCGCGTCTGCCTTGGAGAAGAAGACAAAGAGCAAGGGGCCCTACAT
CTGCGCTCTGTGCGCCAAGGAGTTCAAGAACGGCTACAATCTCCGGAGGCACGAAGCCATCCACACGGGAGCCAA
GGCCGGCCGGGTCCCCTCGGGTGCTATGAAGATGCCGACCATGGTGCCCCCTGAGCCTCCTGAGCGTGCCCCAGCT
GAGCGGAGCCGGCGGGGGAGGGGGAGAGGCGGGTGCCGGCGGCGGCGCTGCCGCAGTGGCCGCGGGTGCGTGGT
GACCACGACCGCCTCGGGGAAGCGCATCCGGAAGAACCATGCCTGCGAGATGTGTGGCAAGGCCTTCCGCGACGT
CTACCACCTGAACCGACACAAGCTGTGCGACTCGGACGAGAAGCCCTACCAGTGCCCGGTGTGCCAGCAGCGCTT
CAAGCGCAAGGACCGCATGAGCTACCACGTGCGCTCACATGACGGCGCTGTGCACAAGCCCTACAACCTGCTCCCA
CTGTGGCAAGAGCTTCTCCGGCCGGATCACCTCAACAGTCACGTCAGACAAGTGCACTCAACAGAACGGCCCTT
CAAATGTGAGAAATGTGAGGCAGCTTTCGCCACGAAGGATCGGCTGCGGGCGCACACAGTACGACACGAGGAGAA
AGTGCCATGTACGTGTGTGGCAAGATGCTGAGCTCGGCTTATATTTCCGACCACATGAAGGTGCACAGCCAGGG
TCCTCACCATGTCTGTGAGCTCTGCAACAAAGGTACTGGTGAGGTTTGTCCAATGGCGGCGGCAGCGGCAGCGGC
GGCAGCGGCAGCAGCGGCAGCAGTAGCAGCCCCCTCCACAGCTGTGGGCTCCCTCTCGGGGGCGGAGGGGGTGCC
TGTGAGCTCTCAGCCACTTCCCTCCCAACCCTGGTGAGCTCCAAGTTGGTTGCGGGGGAGAGGGGAGAATGGAGT
AGAGTCCCTTGGTACAAGCTCCTCTCCCCCTCTTTTCCCACTCCTATTTCCCTACCAACCAAGGAGCCTC
CAGAAGGAAAGGAGGAAGAAATGTTTTCTTAGGGGAATTC

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FIGURE 4505

TCGCCGTGGCCCCGGTCGCGTCTGCCTTGGAGAAGAAGACAAAGAGCAAGGGGGCCCTACATCTGCGCTCTGTGCG
CCAAGGAGTTCAAGAACGGCTACAATCTCCGGAGGCACGAAGCCATCCACACGGGAGCCAAGGCCGGCCGGGTCC
CCTCGGGTGCTATGAAGATGCCGACCATGGTGCCCCCTGAGCCTCCTGAGCGTGCCCCAGCTGAGCGGAGCCGGCG
GGGGAGGGGGAGAGGCGGGTGCCGGCGGGCGCTGCCGAGTGCCCGCCGGTGGCGTGGTGACCACGACCCGCT
CGGGGAAGCGCATCCGGAAGAACCATGCCTGCGAGATGTGTGGCAAGGCCTTCCGCGACGTCTACCACCTGAACC
GACACAAGCTGTGCACTCGGACGAGAAGCCCTACCAGTGCCCGGTGTGCCAGCAGCGCTTCAAGCGCAAGGACC
GCATGAGCTACCACGTGCGCTCACATGACGGCGCTGTGCACAAGCCCTACAACCTGCTCCCACTGTGGCAAGAGCT
TCTCCCGCCGGATCACCTCAACAGTCACGTGAGACAAGTGCACTCAACAGAACGGCCCTTCAAATGTGAGAAAT
GTGAGGCAGCTTTCGCCACGAAGGATCGGCTGCGGGCGCACACAGTACGACACGAGGAGAAAGTGCCATGTCACG
TGTGTGGCAAGATGCTGAGCTCGGCTTATATTTTCGGACCACATGAAGGTGCACAGCCAGGGTCTCACCATGTCT
GTGAGCTCTGCAACAAAGGCTTCAACACGGCAGCATACTGCGCATCCACGCGGTGAAGGACCACGGGCTCCAGG
CCCCGCGGGCTGACCGCATCCTGTGCAAGCTGTGCAGCGTGCACTGCAAGACCCCTGCCAGCTGGCCGGCCACA
TGCAGACCCATCTGGGGGGGGCGCCCCCTGTCCCGGGAGACGCCCCCAGCCACAGCCACCTGCTGAGGGGG
ACCCCGCACCCACCAGGTACTGGTGAGGTTTGTCCAATGGCGGGCGGCAGCGGCAGCGGCGGCAGCGGCAGCAGC
GGCAGCAGTAGCAGCCCCCTCCACAGCTGTGGGCTCCCTCTCGGGGGCGGAGGGGGTGCCTGTGAGCTCTCAGCC
ACTTCCCTCCCAACCCTGGTGAGCTCCAAGTTGGTTGCGGGGGAGAGGGGAGAATGGAGTAGAGTCCCTTGGTAC
AAGCTCCTCTCCCCCTCTTTTCCCACTCCTATTTCCCTACCAACCAAGGAGCCTCCAGAAGGAAAGGAGG
AAGAAATGTTTTCTTAGGGGAATTCGCTAGGTTTAAAGATTGTTTTCTCTGCTCCTCTTCTGTGACACCTGAC
CCCACACAAACCTGTCCCTCGGTTGTGTTGAAGTCCCTGGACAGTGGGCAGGGGTGGCAGAGGACACGAGCAG
CCACTGCCCCGTACCCCTCTCCTCTGTGTAAGCCCATGCCCTGTCTTCCAGGGACTTGTGAGCCTCTTCCCTCG
ACGGTCCTCTTCTCCTTCCAGTCCTCTCCCCCTGCTGTGTCAGCCCTCCCCGGGGAGTTGGTGCTTTCTTT
TCCTTTTTTTTTTTTTTCCAGGGGGAGGGAGGAGAGGAAGGAGGGGATCAGAGCTGTCCCAAAGAGGGAAAGCG
GTGAGGTTTGAGGAGGGGAGAGCAGGGCCGGCAAAGGTTGTACCTTCATAAGGTGGTATGGGGGGTTGGGGTC
AGGCCCTGAACATCGTCCTACTTGAGAATCTGTGAGGGGAAAAGTCAAGGGGAGCAGGAGGAAGAGCCAGGAGG
GCCAGAGGCAGAGAAGAGATGGAGTCTTAGGGGCCAGGGTGAGCGAGGGGTCCAGGGCCTAGAGGTGCTTCCTGG
GGGCGGGGGAATGCAGCCAGTGTCCTCCCTCCCTCTTCCACCCAGCTCCAGCCCTGGTCTTGTCTTTTCATCCC
TCTTCCCCACGACAGAAGAAGTTGTGGCCCTGGCCATGTCATCGTTTCTGTGTCCCTGCATGTACCCACCC
TCCACCCCTTCTTTTTCGCGGGACCCATTACAATAAATTTTAAATA

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FIGURE 4506

MKMPTMVPLSLLSVPQLSGAGGGGGEAGAGGGAAVAAGGVVTTTASGKRIRKNHACEMCGKAFRDVYHLNRHKL
SHSDEKPYQCPVCQQRFKRKDRMSYHVRSHDGAVHKPYNC SHCGKSFSRPDHLNSHVRQVHSTERPFKCEKCEAA
FATKDRLRAHTVRHEEKVPCHVCGKMLSSAYISDHMKVHSQGPHHVCELCNKGFTTAAYLRIHAVKDHGLQAPRA
DRILCKLCSVHCKTPAQLAGHMQTHLGGAAPLSRETTPSHSPPAEGDPRT HQVLVRFVQWRRQRQRRQRQRRQ

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FIGURE 4507

GGGCGGGCCCAAGGAGGGAGTGGAAATGCGCCGCGGGCGGCTCGACGCAGCAGAGGCGACGCGAGATGGCGGCAGCT
 TCAGCGGCGGCGATCTCAGGAGCTGGTTCGCTGTTCGGCTAAGCAAGATTGGAGCTACTCGTCGTCCACCTCCAGCT
 CGCGTAAGGGTGGCTGTGCGACTGCGGCCATTTGTGGATGGAACAGCGGGAGCAAGTGATCCCCCTGTGTGCGG
 GGCATGGACAGCTGCTCTCTAGAGATTGCTAACTGGAGGAACCACCAGGAGACTCTCAAATACCAGTTTGATGCC
 TTCTATGGGGAGAGGAGTACTCAGCAGGACATCTATGCAGGTTTCAAGTGCAGCCCATCCTAAGGCACCTTGCTGGAA
 GGGCAGAATGCCAGTGTGCTTGCCTATGGACCCACAGGAGCTGGGAAGACGCACACAATGCTGGGCAGCCCAGAG
 CAACCTGGGGTGATCCCGCGGGCTCTCATGGACCTCCTGCAGCTCACAAGGGAGGAGGGTGCCGAGGGCCGCGCA
 TGGGCCCTTTCTGTACCATGTCTTACCTAGAGATCTACCAGGAGAAGGTATTAGACCTCCTGGACCCCTGCTTCG
 GGAGACCTGGTAATCCGAGAAGACTGCGGGGGGAATATCCTGATTCCGGGTCTCTCCAGAAGCCCATCAGTAGC
 TTTGCTGATTTTGAGCGGCACTTCTTGCCAGCCAGTCGAAATCGGACTGTAGGAGCCACCCGGCTCAACCAGCGC
 TCCTCCCGCAGTCATGCTGTGCTCCTGGTCAAGGTGGACCAGCGGGAACGTTTGGCCCCATTTGCGCCAGCGAGAG
 GGAAACTCTACCTGATTGACTTGGCTGGGTGAGAGACAACCGGCGCACAGGCAACAAGGGCCTTCGGCTAAAA
 GAGAGTGGAGCCATCAACACCTCCCTGTTTGTCTGGGCAAAGTGGTAGATGCGCTGAATCAGGGCCTCCCTCGT
 GTACCTTATCGGGACAGCAAGCTCACTCGCCTATTGCAGGACTCTCTGGGTGGCTCAGCCCACAGTATCCTTATT
 GCCAACATTGCCCCTGAGAGACGCTTCTACCTAGACACAGTCTCCGCACTCAACTTTGCTGCCAGGTCCAAGGAG
 GTGATCAATCGGCCTTTTACCAATGAGAGCCTGCAGCCTCATGCCTTGGGACCTGTTAAGCTGTCTCAGAAAGAA
 TTGCTTGGTCCACCAGAGGCAAAGAGAGCCCGAGGCCCTGAGGAAGAGGAGATTGGGAGCCCTGAGCCCATGGCA
 GCTCCAGCCTCTGCCTCCAGAACTCAGCCCCCTACAGAAGCTAAGCAGCATGGACCCGCCATGCTGGAGCGC
 CTCCTCAGCTTGGACCGTCTGCTTGCCTCCAGGGGAGCCAGGGGGCCCTCTGTTGAGTACCCCAAAGCGAGAG
 CGGATGGTGCTAATGAAGACAGTAGAAGAGAAGGACCTAGAGATTGAGAGGCTTAAGACGAAGCAAAAAGAACTG
 GAGGCCAAGATGTTGGCCCAGAAGGCTGAGGAAAAGGAGAACCATTGTCCACAATGCTCCGGCCCCCTTTACAT
 CGCACAGTCACAGGGGCAAAGCCCCTGAAAAAGGCTGTGGTGATGCCCTACAGCTAATTCAGGAGCAGGCAGCA
 TCCCCAAATGCCGAGATCCACATCCTGAAGAATAAAGGCCGGAAGAGAAAGCTGGAGTCCCTGGATGCCCTAGAG
 CCTGAGGAGAAGGCTGAGGACTGCTGGGAGCTACAGATCAGCCCGGAGCTACTGGCTCATGGGCGCCAAAAAATA
 CTGGATCTGCTGAACGAAGGCTCAGCCCGAGATCTCCGCAGTCTTCAGCGCATTTGGCCGAAGAAGGCCAGCTA
 ATCGTGGGCTGGCGGGAGCTCCACGGCCCCCTTACGCCAGGTGGAGGACCTGGAACGCGTGGAGGGCATAACGGGG
 AAACAGATGGAGTCCTTCTGAAGGCAAACATCCTGGGTCTCGCCGCCGCCAGCGCTGTGGCGCCTCCTGACCG
 TCGTCTCCTCACTCCGCCTTTTCAAATTTTGTATAACCCCGTGTGTGTAAATACAGTTTTTGTCTCCGGTG

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FIGURE 4508

MAAGGSTQQRREMAAASAAAISGAQRCLSKIGATRRPPPARVRVAVRLRPFVDGTAGASDPPCVRGMDSCSLE
IANWRNHQETLKYQFDFYGERSTQDDIYAGSVQPILRHLLLEGQNASVLAYGPTGAGKTHTMLGSPEQPGVIPRA
LMDLLQLTREEGAEGRPWALSVTMSYLEIYQEKVLDLLDPASGDLVIREDCRGNILIPGLSQKPISSFADFERHF
LPASRNRTVGATRLNQRRSSRSHAVLLVKVDQRERLAPFRQREGKLYLIDLAGESEDNRRTGNKGLRLKESGAINTS
LFVLGKVVDALNQGLPRVPYRDSKLTRLQLQDSLGGSAHSILIANIAPERRFYLDTVSALNFAARSKEVINRPFTN
ESLQPHALGPVKLSQKELLGPPPEAKRARGPEEEIIGSPEPMAAPASASQKLSPLQKLSSMDPAMLERLLSLDRLL
ASQGSQGAFLSTPKRERMVLMKTVEEKDLEIERLKTQKELEAKMLAQKAEKENHCPTMLRPLSHRTVTGAKP
LKKAVVMPLQLIQEQAAASPNAEIHILKNKGRKRKLESLEDALEPEEKAEDCWELQISPELLAHGRQKILDLLNEGS
ARDLRSLQRIGPKKAQLIVGWRELHGPFSSQVEDLERVEGITGQMESFLKANILGLAAGQRCGAS

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FIGURE 4509

GTCCTGAGCAGCCAAACACACCAGCCCAGACAGCTGCAAGTCACCATGGACGCTGAAGGCCTGGCGCTGCTGCTGC
CGCCCGTCACCCCTGGCAGCCCTGGTGGACAGCTGGCTCCGAGAGGACTGCCCAGGGCTCAACTACGCAGCCTTGG
TCAGCGGGGCAGGCCCCCTCGCAGGCGGGCGCTGTGGGCCAAATCCCCTGGGGTACTGGCAGGGCAGCCTTTCTTCG
ATGCCATATTTACCCAACTCAACTGCCAAGTCTCCTGGTTCTCTCCCGAGGGATCGAAGCTGGTGCCGGTGGCCA
GAGTGGCCGAGGTCCGGGGCCCTGCCCCACTGCCTGCTGCTGGGGGAACGGGTGGCCCTCAACACGCTGGCCCGCT
GCAGTGGCATTGCCAGTGCTGCCGCCGCTGCAGTGGAGGCCGCCAGGGGGGCCGGCTGGACTGGGCACGTGGCAG
GCACGAGGAAGACCACGCCAGGCTTCCGGCTGGTGGAGAAGTATGGGCTCCTGGTGGGCGGGGCCGCTCGCACC
GCTACGACCTGGGAGGGCTGGTGTGGTGAAGGATAACCATGTGGTGGCCGCCGGTGGCGTGGAGAAGGCGGTGC
GGGCGGCCAGACAGGCGGCTGACTTCACTCTGAAGGTGGAAGTGGAATGCAGCAGCCTGCAGGAGGCCGTGCAGG
CAGCTGAGGCTGGTGGCGACCTTGTCTGCTGGACAACCTCAAGCCAGAGGAGCTGCACCCACGGCCACCGTGC
TGAAGGCCCAGTTCCCGAGTGTGGCTGTGGAAGCCAGTGGGGGCATCACCTGGACAACCTCCCCCAGTTCTGCG
GGCCGCACATAGACGTATCTCCATGGGGATGCTGACCCAGGCGGCCCCAGCCCTTGATTTCTCCCTCAAGCTGT
TTGCCAAAGAGGTGGCTCCAGTGCCCAAAATCCACTTAGTCCTAAACCGGAAGAGGATGACACCGGCCATGGGTTA
ACGTGGCTCCTCAGGACCTCTGGGTACACATCTTTAGGGTCAGTGGCCAATGGGGCACATTTGGCACTAGCTT
GAGCCCAACTCTGGCTCTGCCACCTGCTGCTCCTGTGACCTGTCAGGGCTGACTTCACCTCTGCTCATCTCAGTT
TCCTAATCTGTAAATGGGTCTAATAAAGGATCAACC

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FIGURE 4510

MDAEG LALLLPVTLAALVDSWLREDCPGLNYAALVSGAGPSQAALWAKSPGVLAGQPFFDAIFTQLNCQVSWFL
PEGSKLVPVARVAEVRGPAHCLLLGERVALNTLARCSGIASAAAAVEAARGAGWTGHVAGTRKTTPGFRLVEKY
GLLVGGAASHRYDLGGLVMVKDNHVVAAGGVEKAVRAARQAADFTLKVEVECSSLQEAVQAAEAGADLVLLDNFK
PEELHPTATVLKAQFP SVAVEASGGITLDNLPQFCGPHIDVISMGMLTQAAPALDFSLKLFAKEVAPVPKIH

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FIGURE 4511

GCCTCGGGAGGTGGTGGAGTGACCTGGCCCCAGTGCTGCGTCCTTATCAGCCGAGCCGGTCCCAGCTCTTGCTCC
TGCTGTGTTGCTGGAAATGGCCACGCTTCTCCTTCTCCTTGGGGTGCTGGTGGTAAGCCCAGACGCTCTGGGGA
GCACAACAGCAGTGACAGACACCCACCTCCGGAGAGCCTTTGGTCTCTACTAGCGAGCCCTGAGCTCAAAGATGT
ACACCACTTCAATAACAAGTGACCCTAAGGCCGACAGCACTGGGGACCAGACCTCAGCCCTACCTCCCTCAACTT
CCATCAATGAGGGATCCCCCTCTTTGGACTTCCATTGGTGCCAGCACTGGTTCCCCTTTACCTGAGCCAACAACCT
ACCAGGAAGTTTCCATCAAGATGTCATCAGTGCCCCAGGAAACCCCTCATGCAACCAGTCATCCTGCTGTTCCCA
TAACAGCAAACCTCTCTAGGATCCCACACCGTGACAGGTGGAACCATAACAACGAACTCTCCAGAAACCTCCAGTA
GGACCACTGGAGCCCCCTGTTACCACGGCAGCTAGCTCTCTGGAGACCTCCAGAGGCACCTCTGGACCCCTCTTA
CCATGGCAACTGTCTCTCTGGAGACTTCCAAAGGCACCTCTGGACCCCTGTTACCATGGCAACTGACTCTCTGG
AGACCTCCACTGGGACCACTGGACCCCTGTTACCATGACAACTGGCTCTCTGGAGCCCTCCAGCGGGGCCAGTG
GACCCAGGTCTCTAGCGTAAACTATCTACAATGATGTCTCCAACGACCTCCACCAACGCAAGCACTGTGCCCT
TCCGGAACCCAGATGAGAACTCACGAGGCATGCTGCCAGTGGCTGTGCTTGTGGCCCTGCTGGCGGTCATAGTCC
TCGTGGCTCTGCTCCTGCTGTGGCGCCGGCGGCAGAAGCGGCGGACTGGGGCCCTCGTGCTGAGCAGAGGTGGCA
AGCGTAACGGGGTGGTGGACGCCTGGGCTGGGCCAGCCCAGGTCCCTGAGGAGGGGGCCGTGACAGTGACCGTGG
GAGGGTCCGGGGGCGACAAGGGCTCTGGGTTCCCCGATGGGGAGGGGTCTAGCCGTGCGCCACGCTCACCACCTT
TCTTTGGCAGACGGAAGTCTCGCCAGGGCTCCCTGGCGATGGAGGAGCTGAAGTCTGGGTGAGGCCCCAGCCTCA
AAGGGGAGGAGGAGCCACTGGTGGCCAGTGAGGATGGGGCTGTGGACGCCCCAGCTCCTGATGAGCCCCGAAGGGG
GAGACGGGGCTGCCCCCTTAAGTGTGCGTGAATAGTGAGGCTGGAGGCCGGAATCTCAGCCAGCCTCCAGCACCTT
CCCTCTCACCATCCCCTGCCCCCTCGCTCCCATGTTTCCACCCGGCACCCCTGATCCTCACCAGAACTCTCCTTTT
TTTTTTTCTTTTGAGACAGAGTTTCGCTTTGTGCGCCAGGCTGGAGTGCAATGCACGATCTCAGTTCACTGCAAC
CTCTGCCTCCTAAGTTCAGGCGATTCTCCTGCCTCAGCTTCCCAGTAAGTGAATTACAGGCACCCACCACCAT
GCCAGCTGCTTTTTTGTATTTTTGGTAGAGATGGGGTTTACCATGTTGGCTAGGCTGGTCTCAAACCTCTGAC
CTCAGGTGATCTACCTGCCTCAGCCTCCCAAAGTGCTGAGATTACAGACATGAGCCTCCGCGCCTTGCTCCTCA
CCCACCTCTTCACTCTGAATCCTCATGAGGCTTCTCAGCCCTGGATTTCTGCTGCCATCCTCACCAGCACCCA
CAACTAGCGCTGGGCAGGGCAGGGCTGGCACCTCTCAACGTCTGTGGACTGAATGAATAAACCTCCTCATCCA
CCCC

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FIGURE 4512

MATLLLLLGVLVVSPDALGSTTAVQTPTSGEPLVSTSEPLSSKMYTTSITSDPKADSTGDQTSALPPSTSINEGS
PLWTSIGASTGSPLPEPTTYQEVS IKMSSVPQETPHATSHPAVPITANSLGSHTVTGGTITTNPETSSRTSGAP
VTTAASSLETSGTSGPPLTMATVSLETSGTSGPPVTMATDSLETSTGTTGPPVTMTTGSLEPSSGASGPQVSS
VKLSTMMSPTTSTINASTVPFRNPDENS RGMLPVAVLVALLAVIVLALLLWRRRQKRRTGALVLSRGGKRNQV
DAWAGPAQVPEEGAVTVTVGGSGGDKGSGFPDGE GSSRRPTLTTFFGRRKSRQGLAMEELKSGSGPSLKGE EEP
LVASEDGAVDAPAPDEPEGGDGAAP

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FIGURE 4513

GGTAACTTCTTGATGTTGCCGTGGCATTGTAACTGTTCATGGTGCTGGTAGGAGTGTAGCAGGGAGGATGATGG
GAGGTCAGTCTTGTCTCTATTTTGGTTTTGGTGGGTTTTGGCCAGCTCCTTCACTGCAACCTGTTTTATCAGCAA
GGTCTTTATGACTGGTATTTTGTGCTGACCTTCTATGTCATCCTGTGACTTAGAATGCCTTAACCATCAGGGAAT
GCAGCCCAGTAGTTTCAGCCTCATTTTCCCGGCTCCTATTTAAGATGGAGTTGCTCTGGTTCACACACCTCTGA
CATGATCATTGCCCAGTGGCGGCTCCACCTCCCGGGTTCAAGAGATCCTCCTGCCTCACCTCCCAAGGTGCTGG
GACTACAGGTGTGTGCCACCACGCTCAGCTAATTTTGTATTTTTTGTAGAGATGGTGTTTTTCCATGTTGCCCA
GGCTGGTCTCAAACCTCTGGGCTCAAGCAATCCTTCTGTCTCAGCCTCCCAAAGTACTGGGATTACAGGCATGTC
CCACCATGCCCAGACTAATATTTACTTTTAATCAGACTAAGATAGGGTTACTACTTGAGTTGCTATGGCTCCAGC
TGAAAGAAAGCCCCTGCAGTCATATCAGCGGTAAACATTTGCTTTATGCTAAAAATATGGTGGACCTGGCATTAC
AGCTATTACAAATCTCCTAAGATGTCTCGGGTAGTGATTAGTTACTTTTCATACTGCTATGAAGAAATACTGGA
AACTGGGTAATTTATAAAGAAAAAGAGGTTTAATGTACTCACAGTTCACAAAGGCTGGAGAGGCCTCAGAATCAT
GGTGGAAGGCAAGGAGCAAAAAGGTATGTCTTCCATGGCAGCAGGCAAGAGAGCAGTGCAGGGAACTGCCCTT
TATAAAACCATCAGATTTAGTGAGATGTATTCATATCACGAGAACAGTATGGGAAAAACCTGCCCCCATGATTC
GATTACCTCCTACCGGGTCCCTCCCACGACACATGGGGATTATGGGAACACAATTCAAGATGAAATTTGGGTGG
GGACGCAGCCAAACCATATCGGGTAGCAACAACCTAGGGTCAGTTTTGCAGGTGGTAAAGCCATTTACCAAGATA
GTTGTAGGTAAAGAAGGGCAGATTTATTAGAGAAATTGTGAAAATATGTTGCAGTGGGCAGTCTAGCAGAGAAGG
GGCTACCTGCAAAGAGGCAAGGGCTGGAGGAAAGTTTTATAGGGTCCTGCTGAAGGGTGCTACGTGTGGAATGAG
GTCATTGTGCCCCGAGGTGTGTTGTGATTAGCTGTTTCTAACAATTGTTTCATACAATAATTGTTTCATTATTGTTT
TCAACTTGGGGCTCTCCCCAACCTGGGGACCTTCCCTATTGTTGCTTACTTATCAGGTCTCCACATAAAGGTGT
GGAAACTTCATTTCATTTCATATCTTCAACACAAATTGTAGGTAGCCTGTTTTTTAAACATTTATTCAACAAATAT
TTAGTCCAAGCCACTATTACTTATTACCTTCTCTACTATTGTATGGACTTTTAACTATCTCTGACACTATTCACT
ATTCTTCCACATTCTCTATTATTTATACCTATGGTAAATTTGCCAGTTTGACCATACAACCTAATACTCACAGGG
AATATATAGAGTCTAGAAGAAAATATACAGGTCCTTAAAGGCTGCCCTGCCAACAAAACCATAACGCAGGAACAA
ACATCACAACTATGCCAAATAATCAATCCTACAATGTCCAAATTTTACTTTAAACTGGAATTTCCAGACTTCC
TTTCTGCATTAACCAGTTTAACTAGACAGTAACGAAATATTCCTACTTTATGCTGTGATAGTTTGTGTTATTTATT
TATTTATTTATTTATTGAGACAGAGTTTCGCTCTTGTGTCAGTGAGCCAGGATCATGCCATTGCACTCCAGCCT
GGTCAACGGAGCGAGACTCCGCCTCATTAAAAA

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FIGURE 4514

CGGTCTTCTCAACAGGCCTGTGCCCCGCGGGGTCCGCCTCCTCTGGGACGCCTTCTCCCGGCACAGAAGGCCT
CCCCCTCTCACCAGGGCCCTCGCCCGCTGGTCCGCCAGGCCCCGCCTTTTTTGGGGCCCCATTGTGCTGCTGGA
CCCGACGAGCAGTGTGACAGTGAACCCACGTAGACGCGGCCCCGGTACCGGGGGTTCAGGCAGTAGAGCAGGT
AGACGCCGAAAAAGCGCCCTGGCCTCGCCGCGACCCCCGCGGGACCCATCGGGCCTTGGGGTTCGGGAACCACAG
CAGGGGGTTGATTGCCGTGACCTAGGGTCCAGGGGAGGGCTGGATCGCTAGGGCTGCAGGGTGCTTGCTTCGGAA
CAAGCTCTCGGGGACTATCCGGAGGCAGCCTGCAGGAAGCCGTAGCGCCGGTACGTGCCCCCTCTCCTGTCTGGAG
GCGGGTGTAGAAGTCCGACCGCGGAAGCCAGACTGCTGTCCAGTCGGCGAGCGCGTACCATTAGCATCGGCTCC
GCCCCAGTCCCACCTTCCTCAGGCTCTGATTGGCTGACACATGGCAAGCGCGAAAAGCCTGGACCGCTGGAAAGC
CCGGCTGCTTGAGGGCGGAAGTACTGCGTTGACGTACGCCTTAGTAAGGGCGGAAGTGAGTTTTCCAGCGGAAGT
GGCTCCTGTAAGGCAGCAAGGTAGCGTGGCCGGCGCCGAGCTGGGGTTGTGTCCCTGCTGGGCTGCCGTTCCAG
CTGGACTGCCGCCATGGAACCTAGCGCCGAATACCTCCGCGAGAAGCTGCAGCGGGACCTGGAGGCGGAGCATGT
GGAGGTGGAGGACACGACCCTCAACCGTTGCTCCTGTAGCTTCCGAGTCCTGGTGGTGTGCGCCAAGTTCGAGGG
GAAACCGCTGCTTCAGAGACACAGGCTGGTGAACGCGTGCTAGCAGAAGAGCTCCCGCACATCCATGCCTTTGA
ACAGAAAACCTGACCCAGACAGTGGGCACGTGAGCGACAGAAATGAGGGACTGGGATCTGCACAGCCATTAA
ATTATAAATCTGG

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FIGURE 4515

MASAKSLDRWKARLLEGGSTALTYALVRAEVSFPAEVAPVRQQGSVAGARAGVVSLLGCRSSWTAAMELSAEYLR
EKLQRDLEAEHVLPSPGGVGQVRGETAASETQVLYRVMRCVTAANQVFFSEAVLTAANERVGVLLGSLDPSMTIH
CDMVITYGLDQLENCQTCGTDYIISVLNLLTLIVEQINTKLPSSFVEKLFIPSSKLLFLRYHKEKEVVAVARAVY
QAVLSLKNIPVLETAYKLILGEMTCALNNLLHSLQLPESCSEIKHEAFKNHVFNVDNAKFVVKFDLSALTTIGNA
KNSLIGVSL

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FIGURE 4517

MSRQVVRSSKFRHVFQGPAKADQCYEDVRVSQTTWDSGFCVNPKFVALICEASGGGAFLVLPLGKTGRVDKNAP
TVCGHTAPVLDIAWCPHNDNVIASGSEDCTVMVWEIPDGGMLPLREPVVTLLEGHTKRVGIVAWHTTAQNVLLSA
GCDNVIMVWDVGTGAAMLTLGPEVHPDTIYSVDWSRDGGICTSCRDKRVRIEPRKGTVVAEKDRPHEGTRPVR
AVFVSEGKILTTGFSRMSEQRVALWDTKHLEEPSLQELDTSSGVLLPFFDPDTNIVYLCGKGDSSIRYFEITSE
APFLHYLSMFSSKESQRGMGYMPKRGLEVNKCEIARFYKLHERRCEPIAMTVPRKSDLFQEDLYPPTAGPDPALT
AEEWLGGRDAGPLLI SLKDGYPVPPKSREL RVNRGLDTGRRRAAPEASGTPSSDAVSRLEEEMRKLOATVQELQKR
LDRLEETVQAK

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GCCACGAAGGCCGAGAGCCGGAACCGGAGTCGCAGCGCGGAGACCCCTGTGCGGTGCGGAGGGGGCGCGGCC
CCGACTCTGACCCGCGCCGGGGGTGGGCCATGGCGGAGATCAGCGACCTGGACCGGCAGATCGAGCAGCTGCGTC
GCTGCGAGCTCATCAAGGAGAGCGAAGTCAAGGCCCTGTGCGCTAAGGCCAGAGAGATCTTGGTAGAGGAGAGCA
ACGTGCGAGAGGGTGGACTCGCCAGTCAAGTGTGCGGCGACATCCATGGACAATTCTATGACCTCAAAGAGCTGT
TCAGAGTAGGTGGCGACGTCCTTGAGACCAACTACCTCTTCATGGGGGACTTTGTGGACCGTGGCTTCTATAGCG
TCGAAACGTTCTCTGCTGCTGGCACTTAAGGTTGCGTATCCTGATCGCATCACACTGATCCGGGGCAACCATG
AGAGTCGCCAGATCACGCAGGTCTATGGCTTCTACGATGAGTGCCTGCGCAAGTACGGCTCGGTGACTGTGTGGC
GCTACTGCACTGAGATCTTTGACTACCTCAGCCTGTGAGCCATCATCGATGGCAAGATCTTCTGCGTGCACGGGG
GCCTCTCCCCCTCCATCCAGACCCTGGATCAGATTGCGACAATCGACCGAAAGCAAGAGGTGCCTCATGATGGGC
CCATGTGTGACCTCCTCTGGTCTGACCCAGAAGACACCACAGGCTGGGGCGTGAGCCCCGAGGAGCCGGCTACC
TATTTGGCAGTGACGTGGTGGCCAGTTCAACGCAGCCAATGACATTGACATGATCTGCCGTGCCACCAACTGG
TGATGGAAGGTTACAAGTGGCACTTCAATGAGACGGTGCTCACTGTGTGGTGGGCACCCAACTACTGCTACCGCT
GTGGGAATGTGGCAGCCATCTTGAGCTGGACGAGCATCTCCAGAAAGATTTTCATCATCTTTGAGGCTGCTCCCC
AAGAGACACGGGGCATCCCCCTCCAAGAAGCCCGTGGCCGACTACTTCTGTGACACCCGCGCCCGGCCCTGCCCT
CCAACCCCTTCTGGCCCTCGCACCACTGTGACTCTGCCATCTTCTCAGACGGAGGCTGGGCGTGGGGGGGGCTGT
CCTGGCTCTGCTGTCCCCAAGAGGGTGCTTCGAGGGTGAGGACTTCTCTGGAGAGGCCTGSAGACCTAGCTCCA
TGTTCTCTCTCTCTCTCCCCACTTGAACCATGAAGTTTCCAATAATTTTTTTTTTCTTTTTTCTTTTTTCT
TGTTTGTTTTTAGATAAAAAATTTTGAGAAAAAAATGAAAAAATTTCTAATAAAAGAAGAAAAATGAAAAAAA
AAAAA
AAAA

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FIGURE 4519

MAEISDLDRQIEQLRRCELKESEVKALCAKAREILVEESNVQRVDSPVTVCGDIHGQFYDLKELFRVGGDVPET
NYLFMGDFVDRGFYSVETFLLLLALKVRYPDRLTIRGNHESRQITQVYGFYDECLRKYGSVTVWRYCTEIFDYL
SLSAIIIDGKIFCVHGGLSPSIQTLQIRTIDRKQEVPHDGPMCDLLWSDPEDTTGWGVSPRGAGYLFGSDVVAQF
NAANDIDMICRAHQLVMEGYKWHFNETVLTVWSAPNYCYRCGNVAAILLEHLQKDFIIFEAAPQETRGI PSKK
PVADYFL

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FIGURE 4520

AGTACCGGGTACGCAGGGGTGCCTCAACCACACTCCGTCCACGGACTCTCCGTTATTTTAGGAGGTCCCTGGCCA
AAGATTTATTTCTCTTGACAACCAAGGGCCTCCGTCTGGATTTCCAAGGAAGAATTTCTCTGAAGCACCAGAAC
TTGCTACTACCAGCACCATGCCCTACCAATATCCAGCACTGACCCCGGAGCAGAAGAAGGAGCTGTCTGACATCG
CTCACCGCATCGTGGCACCTGGCAAGGGCATCTGGCTGCAGATGAGTCCACTGGGAGCATTGCCAAGCGGCTGC
AGTCCATTGGCACCGAGAACACCGAGGAGAACCGGCGCTTCTACCGCCAGCTGCTGCTGACAGCTGACGACCGCG
TGAACCCCTGCATTGGGGGTGTCTCTCTTCCATGAGACACTCTACCAGAAGGCGGATGATGGGCGTCCCTTCC
CCCAAGTTATCAAATCCAAGGGCGGTGTTGTGGGCATCAAGGTAGACAAGGGCGTGGTCCCCCTGGCAGGGACAA
ATGGCGAGACTACCACCCAAGGGTTGGATGGGCTGTCTGAGCGCTGTGCCAGTACAAGAAGGACGGAGCTGACT
TCGCCAAGTGGCGTTGTGTGCTGAAGATTGGGGAACACACCCCTCAGCCCTCGCCATCATGGAAAATGCCAATG
TTCTGGCCCGTTATGCCAGTATCTGCCAGCAGAATGGCATTGTGCCCATCGTGGAGCCTGAGATCCTCCCTGATG
GGGACCATGACTTGAAGCGCTGCCAGTATGTGACCGAGAAGGTGCTGGCTGCTGTCTACAAGGCTCTGAGTGACC
ACCACATCTACCTGGAAGGCACCTTGCTGAAGCCCAACATGGTCAACCCAGGCCATGCTTGCACTCAGAAGTTTT
CTCATGAGGAGATTGCCATGGCGACCGTCACAGCGCTGCGCCGCACAGTGCCCCCGCTGTCACTGGGATCACCT
TCCTGTCTGGAGGCCAGAGTGAGGAGGAGGCGTCCATCAACCTCAATGCCATTAAAGTGCCCCCTGCTGAAGC
CCTGGGCCCTGACCTTCTCCTACGGCCGAGCCCTGCAGGCCTCTGCCCTGAAGGCCTGGGGCGGGAAGAAGGAGA
ACCTGAAGGCTGCGCAGGAGGAGTATGTCAAGCGAGCCCTGGCCAACAGCCTTGCCCTGTCAAGGAAAGTACACTC
CGAGCGGTCAGGCTGGGGCTGCTGCCAGCGAGTCCCTCTTCGTCTCTAACCACGCCTATTAAGCGGAGGTGTTCC
CAGGCTGCCCCCAACAACTCCAGGCCCTGCCCCCTCCCACTCTTGAAGAGGAGGCCGCTCCTCGGGGCTCCAGG
CTGGCTTGCCCCGCGCTCTTCTTCCCTCGTGACAGTGGTGTGGTGTCTGTGAATGCTAAGTCCATCACCC
TTTCCGGCACACTGCCAAATAAACAGCTATTTAAGGGG

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FIGURE 4521

MPYQYPALTPEQKKELSDIAHRIVAPGKGILAADESTGSI AKRLQSIGTENTENRRFYRQLLLTADDRVNPCIG
GVILFHETLYQKADDGRFPQVIKSKGGVVGIVDKGVVPLAGTNGETTTQGLDGLSERCAQYKKDGADFAKWRC
VLKIGEHTPSALAIMENANVLARYASICQQNGIVPIVEPEILPDGDHDLKRCQYVTEKVLAAVYKALSDHHIYLE
GTLLKPNMVTFGHACTQKFSHEEIAMATVTALRRIVPPAVTGITFLSGGQSEEEASINLNAINKCPLLKPWALTF
SYGRALQASALKAWGGKKENLKAAQEYVKRALANSLACQGYTPSGQAGAAASESLFVSNHAY

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FIGURE 4522

GGCACGAGGCGGCCTCCCTGCCCTTCACGGCCCGCCTGCCTCCCTGCCCAAGTCCTGAGCCACCATGCTGACCC
CGATGGTGGCCGGGGGGGTGGTGTTCCTCGGACTCTTCTCCTCTCCAAGAACACGCTCCAGCGGCTGCCCCAGC
TACGCTGGGAGGAGGCCGACGCAGTCATTGTCTCAGCCAGGCTGGTGTCTCTGTCCAGGCCATCATGGCCTCCA
CTGCCGGCTACATCGTCTCCACCTCCTGCAAGCACATCATTGATGACCAACACTGGCTGTCTCTGCCTACACGC
AATTGTCTGTGCCCTACTTCATCTACGACATCTACGCCATGTTCTCTGTCACTGGCACAAGCACCAGGTCAAAG
GGCATGGAGGGGACGACGGAGCGGCCAGAGCCCCGGGCAGCACGTGGGCCATAGCGCGTGGCTACCTGCACAAGG
AGTTCCTCATGGTGTCTCCACCATGCCGCCATGGTGTGGTGTGCTTCCACTCTCAGTGGTGTGGCGACAGGGTA
AGGGAGACTTCTTTCTGGGTGTCATGTTGATGGCAGAGGTGAGCACGCCCTTCGTCTGCCTTGGCAAGATCCTCA
TCCAGTACAAGCAGCAGCACACACTGCTGCACAAGGTGAACGGGGGCCCTGATGCTGCTCAGCTTCTCTGCTGCC
GGGTGCTGCTCTTTCCCTACCTGTACTGGGCCTACGGGCGCCATGCCGGCCTGCCCTGCTGGCCGTGCCCCTGG
CCATCCCTGCCCACGTCAACCTGGGCGCTGCGCTGCTCTGGCCCCCTCAGCTCTACTGGTTCTTCTCTCATCTGCC
GTGGGGCCTGCCGCTCTTCTGGCCCCGCTCCCGGCCGCCCGGCCCTGCCAGGCCCAGGACTGAGGCCGGGGGC
CGGGACCCCTCCCCCTCCCCACCCCCACCCCCGTGGAGACAGGGCTCTGGGGCTGATGGCTGGGGTTGGGAGCCAG
GGTCTCTTGCCCCGACAACCCCAGGACTGACGATGACCCCGAAAGGGAAGAGGCCCATCTCTCGGGGACTGAG
GGGTGGAGAGAGGGGACCTCTTCCCCCTACTCTGCCCTTCTGACACCCCTTGCGCTGGAGGAGGGGAGGGG
GCACCGCTTCCACCCACTGAGGGCAGGAGGGCTTGTGGGGAGGGACACCAACAGGGTTTCAAGGGGACCAGGAG
TCAGAATGTGGGGAGACGCTCTGCCAAGGCCATCCAGCCCCATGCTGCCATCCCCCAGGGCTCCCCATCACC
CGAGAGGAGAGGACGCCCCAACTAACCCCCGCTGGCCCTCGGGCCTCCCGAGTGGCCGGCTGCAACCACGGCTCC
TCTCCAGGGTAGGCCAGCTTGAGGAATCTTATTTATTTTATTTATTTATTTACCCAAATTTGAAGTAGTCTGTTGGGT
GGGGGAAGGAGGTGGCTGCTACCCCCAAGCCTTCCAGTGTGACAACCCCGGGGGCAGGCGAGGGCGCCAGTC
CCTCACCATCGGCTGCACATCGCGCCCTCGGGCCCTGCCATGTCCCTGGTGCTACTGACCTCTCAAGGCTTCCTC
CAATCTGGGGTCGGGGGACCTGGGAGGTGCTTTACAGACCGCTAATAAAAGACGATCTGCGTGAACGCCAAAAA
AAAAAAAAAAAAAAAAAAAAA

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FIGURE 4523

MASTAGYIVSTSCCKHIIDDQHWLSSAYTQFAVPYFIYDIYAMFLCHWHKHQVKGHGGDDGAARAPGSTWAIARGY
LHKEFLMVLHHAAMVLVCFPLSVVWRQGKGDFFLGCMLMAEVSTPFVCLGKILIQYKQHTLLHKVNGALMLLSF
LCCRVLLFPYLYWAYGRHAGLPLLAVPLAIPAHVNLGAALLLAPQLYWFFLICRGACRLFWPRSRPPPACQAQD

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FIGURE 4524

CGTTGGCCCTTGGCCGCGGACCGCGTGGGCCGAGAACTTTGCCAGACGAGACTTGTTTTCTCTGGGCAGTTGGAG
GGTCTCGCGGCTCCTACCCCTTTTTTGGAAACGGATCATTTTAAAAGTTCTCGTTAGAAACCAATTGGCGCCGGCA
CCCTTTGGGTGAAACCTAATCAGCCCCGCGACGCTGCCTTTCTCACTGGTCACGGGCAACAGCTAGGCTGCTGTTA
TTTCGCAAGGCAGAAGAGAAAAGGCATCCTCGCGAGCAGATGAGGAACCTCGGGGATAAATCCTTTTGTGGCTTC
AAGTGCTAAGTACATTAGAGTCAGGAACGGCGCTTTCCAGCGTCCGCCATTTTGTGGCGTCACCGCGTCGCTG
CTACGGCTTGGGGTAGCGGGAGGGCAGACTCTGGGCGCCACTCCCGGGCCGGTCATGAACGGGCCGGCGGACGGC
GAAGTGGACTACAAAAAAAATACCGGAATCTGAAGCGGAAGCTCAAGTTCCTCATCTACGAGCAGAGTGCTTC
CAGGAGGAGCTGAGGAAAGCGCAAAGGAAATTACTGAAGGTGTCCCGGGACAAGAGTTTCCTCCTAGACCGACTT
CTGCAGTACGAGAACGTGGATGAAGACTCTTCGGACTCAGATGCCACTGCATCATCAGATAACAGCGAGACGGAG
GGGACACCCAAGTTGTCTGACACACCGGCCCTAAGAGGGTTTCCCCTTCAGGCCTCCGGGGTCCCCTCCCATA
CCTGAGCTCGCTGGCCTCCTCCCGCTACCCCCCATTCCTTCTGACTACCTGGCCCTGCAGCTGCCCGAGCCAG
TCCCCTGAGGCCCAAGCGGGAGAAACGGCCCCGCCTGCCCGGAACTCAAGATGGCGGTGGGACCCCCGACTG
CCCTGTGGGAGGGCCGCTGACCTTCCCTGGCCGGGGTTCTGGGGCTGGGGTCGGGACAACCTGACCCCCCTCC
ACCCCTAAGATGCCCCCCCCACGATCCTGAGCACGGTCCCTCGGCAGATGTTAGCGATGCAGGTAGCGGGGA
CGATGCCTTGATGGAGACGATGACCTGGTGATCGACATCCC

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FIGURE 4525

MRNLGDKSFCGFKCLSTLES GTALSSVRHF CGVTASLLRLGVAGGQTLGATPGPVMNGPADGEVDYKKKYRNLKR
KLKFLIYEHECFQEELRKAQRKLLKVS RDKSFLLDRL LQYENVDE DSSDSDATASSDNSETEGTPKLS DTPAPKR

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FIGURE 4526

CCGAGGTTCTCATCTGCTCGCGAGGATGCCTTTTCTCTTCTGCCTTGCGAAATAACAGCAGCCTAGCTGTTGCC
CGTGACCAAGTGAGAAAGGCAGCGTCGCGGGCTGATTAGGTTTACCCAAAGGGTGCCGGCGCCGAATTGGTTTCT
AACGAGAACTTTTAAATGATCCGTTCCAAAAAGGGTAGGAGCCGCGAGACCCTCCAAGTGCAGAGAGAAACA
AGTCTCGTCTGGCAAAGTTCTCGGCCACGCGGTCCGCGGCCAAGGGCCAACGGTCCCTCGCCCCACGTTGCCGC
AGCACTGCGCGTGCGCGAGCCGCTGTCAAACGCGCTGACGGAGGCCGAGAAGAAAAAGGCGGGAGCCGTCAT
CCCGGGTTGAGCAAAATGGCGCGGAGAGGAGATGCAGGAGTTACCCGTAGCTTCTTCCGAGGCCGCCGGAC
CTCAGCACGCTTACGCATTCCATCGTGCGGCGGAGGTACTTAGCTCACTCGGGCCGCGAGCCACCTGGAGCCCGAG
GAGAAGCAGGCACTGAAGCGGCTGGTGGAGGAGGAGCTGCTGAAGATGCAGGTGGATGAAGCCGCTTCCAGGGAA
GACAAACTGGACCTTACCAAGAAGGGCAAGAGGCCTCCCACCCCTTGTAGCGACCCGGAGAGAAAAAGGTTCCGC
TTCAATTGAGAGTCGGAGTCGGGCTCTGAAGCTTCCAGCCAGACTACTTTGGACCCCGAGCAAGAAATGGGGTG
GCAGCAGAAGTCAGCCAGCCAAAGAGGAGAAATCCAAGGCGAGCCTCAAAGGCAGTTGAGGAGAGCAGTGATGAG
GAACGGCAGAGGGACCTGCCCGCACAGAGGGGAGAGGAGAGCAGTGAGGAGGAGGAAAAAGGGGTACAAGGGGAAG
ACTAGGAAGAAACCTGTGGTAAAGAAGCAGGCACCAGGCAAGGCCTCAGTCAGTAGGAAGCAGGCCAGGGAAGAA
AGTGAGGAGAGCGAGGCAGAACCCGTTTCAGAGGACAGCAAGAAAGGTGGAGGAAATAAAGGAACTAAAAGCCTG
AAGGAAAGTGAACAGGAGAGTGAAGAGGAGATCCTAGCCAGAAAGAAAGAGCAGAGAGAGGAGGAAGTGGAGGAG
GAAGAGAAAGAAGAGGATGAGGAAAAGGGGGATTGGAACCCAGAACCCAGGAGCAATGGCCGGAGAAAGTCAGCT
AGGGAGGAGAGGAGCTGTAAGCAGAAAAGCCAGGCAAGAGGCTCTTGGGAGACTCAGACAGCGAGGAAGAGCAG
AAAGAGGCAGCCAGCAGTGGGGATGACAGTGGGAGAGATAGAGAACCCCAAGTGCAGAGGAAGAGTGAGGACAGG
ACCCAGCTTAAGGGTGGGAAGAGTTGAGTGGAAGCAGCGAGGACGAGGAAGACAGTGGGAAGGGGGAACCCACA
GCTAAAGGCTCTAGAAAGATGGCCAGACTGGGCAGCACCAAGTGGTGAGGAAAGTGACTTGGAGAGGGAGGTAAGT
GACAGCGAGGCAGGGGGAGGCCCCAGGGGGAGAGGAAGAACCCTCTTCCAAGAGAGCTCCAGGAAAGGCAGG
ACACGAAGCTCCTCTTCTCCTCAGATGGAAGTCCAGAGGCCAAAGGAGGGAAGGCTGGCTCAGGTCGCCGTGGA
GAGGACCACCCGGCTGTGATGAGGCTGAAGCGCTACATTCCGGGCTGTGGTGCCCATCGAAACTACAAGAAGCTG
TTGGGCTCCTGTTGCTCACACAAGGAGCGCCTGAGTATCCTCCGGGCAGAACTGGAAGCGCTAGGCATGAAGGGT
ACCCCTTCCCTAGGGAAGTGTGCGGGCCCTGAAGGAGCAGAGGGAGGAGGAGCTGAGGTGGCCTCCTTGGATGTT
GCGAACATCATCAGTGGCTCGGGCCGGCCACGCAGACGTACAGCCTGGAACCCCTTTAGGAGAAGCAGCACCCCA
GGGAGCTGTACCGACGGACCCCTGGACTCAGATGAAGAGCGGCCCGTCCCGCACCCCGAGACTGGTCACATATG
CGTGGCATCATCAGCAGTGATGGCGAGAGTAACTGAGCTCTGCCACCCCGAGGAGGACCCCTTGATACATGTACA
AAGCATACATAGCACCCCTTGCCCTGTGTCTGTGGAACAGAAGCAGCTTCCTTCAGAGAAGACTGCAGCTCCCAA
GGACACAAGCTGTTGGGATGCTACTTCTCAGCTTACGCTGTCCCTTTAAGGTGTTTATTTTTTAAGACTCAATA
AAGGAGTGTTTTTAATCACCTC

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FIGURE 4527

AGCAGGGTCTCACTCTGTCACCCAGGCTGGAGTGCAGTGGCGCAGTTATAGCTCACTGCAGCCTTGAACCTCCTGG
GCTCAAGTGATCCTTCCACCTCAGCCTCCCTAGTAGCTGGGACCACAGGTGGTGACTTCCAAGAGTGACTCCGTC
GGAGGAAAAATGACTCCCCAGTCGCTGCTGCAGACGACACTGTTCTCTGCTGAGTCTGCTCTTCTGGTCCAAGGTG
CCCACGGCAGGGGCCACAGGGAAGACTTTTCGCTTCTGCAGCCAGCGGAACCAGACACACAGGAGCAGCCTCCACT
ACAAACCCACACCAGACCTGCGCATCTCCATCGAGAACTCCGAAGAGGCCCTCACAGTCCATGCCCTTTCCCTG
CAGCCCACCCTGCTTCCCGATCCTTCCCTGACCCCAGGGGCCTCTACCACTTCTGCCTCTACTGGAACCGACATG
CTGGGAGATTACATCTTCTCTATGGCAAGCGTGACTTCTTGCTGAGTGACAAAGCCTCTAGCCTCCTCTGCTTCC
AGCACCAGGAGGAGAGCCTGGCTCAGGGCCCCCGCTGTTAGCCACTTCTGTACCTCCTGGTGGAGCCCTCAGA
ACATCAGCCTGCCAGTGCCGCCAGCTTACCTTCTCCTTCCACAGTCTCCCCACACGGCCGCTCACAATGCCT
CGGTGGACATGTGCGAGCTCAAAGGGACCTCCAGCTGCTCAGCCAGTTCCTGAAGCATCCCCAGAAGGCCTCAA
GGAGGCCCTCGGCTGCCCCGCCAGCCAGCAGTTCAGAGCCTGGAGTCGAAACTGACCTCTGTGAGATTATGG
GGGACATGGTGTCTTTCGAGGAGGACCGGATCAACGCCACGGTGTGGAAGCTCCAGCCCACAGCCGGCCTCCAGG
ACCTGCACATCCACTCCCGGCAGGAGGAGGAGCAGAGCGAGATCATGGAGTACTCGGTGCTGCTGCCTCGAACAC
TCTTCCAGAGGACGAAAGGCCGGAGCGGGGAGGCTGAGAAGAGACTCCTCCTGGTGGACTTCAGCAGCCAAGCCC
TGTTCCAGGACAAGAATTCCAGCCAAGTCTCTGGGTGAGAAGGTCTTGGGGATTGTGGTACAGAACACCAAAGTAG
CCAACCTCACGGAGCCCCGTGGTGTCTACTTTCAGCACCAGCTACAGCCGAAGAATGTGACTCTGCAATGTGTGT
TCTGGGTGGAAGACCCACATGTGACAGCCCGGGGCATTGGAGCAGTGCTGGGTGTGAGACCGTCAGGAGAGAAA
CCCAAACATCCTGCTTCTGCAACCCTTGACCTACTTTGCAGTGCTGATGGTCTCCTCGGTGGAGGTGGACGCCG
TGCACAAGCACTACCTGAGCCTCCTCTCCTACGTGGGCTGTGTCTCTCTGCCCTGGCCTGCCTTGTCAACATTG
CCGCCTACCTCTGCTCCAGGGTGGCCCTGCCGTGCAGGAGGAAACCTCGGGACTACACCATCAAGGTGCACATGA
ACCTGCTGCTGGCCGTCTTCTGCTGGACACGAGCTTCTGCTCAGCGAGCCGGTGGCCCTGACAGGCTCTGAGG
CTGGCTGCCGAGTCAGTGCCATCTTCTGCACTTCTCCTGCTCAGCTGCCTTTCTGGATGGGCTCGAGGGGT
ACAACCTCTACCGACTCGTGGTGGAGGTCTTTGGCACCTATGTCCCTGGCTACCTACTCAAGCTGAGCGCCATGG
GCTGGGGCTTCCCCATCTTTCTGGTGACGCTGGTGGCCCTGGTGGATGTGGACAACATATGGCCCCATCATCTGG
CTGTGCATAGGACTCCAGAGGGCGTCATCTACCCTTCCATGTGCTGGATCCGGGACTCCCTGGTCAGCTACATCA
CCAACCTGGGCCTCTTACGCTGGTGTCTTCTGTTCAACATGGCCATGCTAGCCACCATGGTGGTGCAGATCCTGC
GGCTGCGCCCCCACACCCAAAAGTGGTCACATGTGCTGACACTGCTGGGCCTCAGCCTGGTCTTGGCCTGCCCT
GGGCCTTGATCTTCTTCTCCTTTGCTTCTGGCACCTTCCAGCTTGTCTCTCTACCTTTTCAGCATCATCACCT
CCTTCCAAGGCTTCTCATCTTCTCTGCTGGTACTGGTCCATGCGGCTGCAGGCCCGGGTGGCCCTCCCTCTGA
AGAGCAACTCAGACAGCGCCAGGCTCCCCATCAGCTCGGGCAGCACCTCGTCCAGCCGCATCTAGGCCTCCAGCC
CACCTGCCCATGTGATGAAGCAGAGATTGGCCCTCGTGCACACTGCCTGTGGCCCCGAGCCCGGCCAGCCCC
AGGCCAGTCAGCCGACAGCTTTGGAAAGCCCAACGACCATGGAGAGATGGGCCGTTGCCATGGTGGACGGACTCC
CGGGCTGGGCTTTTGAATTGGCCTTGGGGACTACTCGGCTCTCACTCAGCTCCCACGGGACTCAGAAGTGCGCCG
CCATGCTGCCTAGGGTACTGTCCCCACATCTGTCCAACCCAGCTGGAGGCCTGGTCTCTCCTTACAACCCCTGG
GCCAGCCCTCATTGCTGGGGGCCAGGCCTTGGATCTTGAGGGTCTGGCACATCCTTAATCCTGTGCCCTTGCTT
GGGACAGAAATGTGGCTCCAGTTGCTCTGTCTCTCTGGTACCCTGAGGGCACTCTGCATCCTCTGTCAATTTA
ACCTCAGGTGGCACCCAGGGCGAATGGGGCCAGGGCAGACCTTCAAGGGCCAGAGCCCTGGCGGAGGAGAGGCC
TTTGCCAGGAGCACAGCAGCAGCTCGCCTACCTCTGAGCCC

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FIGURE 4528

AGGGCTTCCTGAAGAAATGAGAAGGACAAATGCCCTGCTGTCTGCCATCGAAGAGTCCCGGAAGAGGACCTTCGGCA
TGGCTGAGGAGTACCATCGGGAGTCAATGTTGGTTGAGTGGGAGCAAGTGAAACAGCGAATTCTGCACACACTGC
TGGCATCAGGAGAAGACGCCCTTGACTTTACTCAAGAAAGCGAGCCAAGCTACATCAGTGATGTGGGACCCCTG
GTCGAAGCTCTCTGGATAACATCGAGATGGCCTATGCGCGGCAAATTTATATCTATAATGAGAAAATTGTAAATG
GACACCTGCAGCCTAACCTGGTGGACCTTTGTGCTTCCGTCGCAGAGCTCGATGATAAGAGCATTTCGGACATGT
GGACCATGGTAAAACAAATGACAGACGTGTTGTTGACACCGGCAACGGATGCCCTGAAGAACCGCAGCAGCGTGG
AAGTGCAGCATGGAGTTTGTGAGGCAGGCCTTGGCGTACCTTGAGCAGAGTTATAAGAATTACACCCTTGTGACTG
TCTTTGGAAATTTGCATCAGGCCCAGCTGGGCGGGGTGCTGGGACTTACCAATTGGTTTGAAGTTTCTGAACA
TTAAACTGCCAGCTCCCTTGCCCTGGACTACAGGATGGAGAGGTGGAAGGCCATCCTGTGTGGGCGCTAATTTACT
ACTGCATGCGCTGTGGAGACCTGCTTGCCGCTTCACAGGTAGTTAATCGAGCCCAGCACCAGCTGGGAGAGTTTA
AAACCTGGTTCCAGGAGTACATGAACAGCAAGGACAGAAAGATTGTCCCCAGCTACGGAAAACAAGCTCCGGCTGC
ATTACCGTAGGGCCCTCAGGAACAATACAGATCCCTACAAGCGGGCCGTGTACTGTATCATTGGCAGATGTGACG
TCACCGACAACCAGAGTGAAGTGGCGGACAAAACCTGAGGATTACCTGTGGCTGAAGTTGAACCAAGTGTGTTTTG
ACGACGATGGCACCAGCTCCCCACAAGACAGGCTCACTCTCTCAGATTCCAGAAGCAGTTGTTGGAAGACTATG
GCGAGTCCCCTTTACGGTGAACCAGCAACCCTTCTCTACTTCCAAGTCTGTTCCTGACAGCGCAGTTTGAAG
CAGCAGTTGCCCTTTCTTTTCCGCATGGAGCGGCTGCGCTGCCATGCTGTCCATGTAGCACTGGTGTGTTTGAGC
TGAAGCTGCTTTTAAAGTCTCTGGACAGAGTGCTCAGCTCCTCAGCCACGAGCCTGGTGACCCCTCCTTGCTTGC
GGCGGCTGAACCTTCGTGCGGCTCCTCATGCTGTACACCCGGAAGTTTGAGTCCACGGACCCAAGGGAGGCCCTCC
AGTACTTCTATTTCTCAGGGATGAGAAAGATAGTCAAGGAGAAAACATGTTTCTGCGCTGTGTGAGTGAGCTTG
TGATTGAAAGCCGAGAGTTTCGATATGATTCTTGGGAACTAGAGAATGACGGAAGTAGAAAGCCTGGAGTCATAG
ATAAGTTTACTAGTGACACAAAGCCTATTATCAACAAAGTTGCTTCTGTGGCAGAAAATAAAGGACTGTTTGAAG
AGGCAGCAAAGCTGTATGACCTTGCCAAGAATGCTGACAAGGTACTGGAGCTGATGAACAAACTGCTGAGCCCTG
TCGTCCCCCAGATCAGTGCCCCGCAATCCAACAAGGAGAGGCTGAAGAACATGGCACTCTCCATTGCCGAACGGT
ATAGGGCTCAAGGAATAAGCGCAAATAAATTTGTGGACTCCACGTTCTATCTTCTTTTGGACTTGATCACCTTTT
TTGACGAGTATCATAGTGGTCATATTGATAGAGCTTTTGATATCATTGAGCGCTTGAAGCTGGTGCCCTTGAATC
AGGAAAGTGTGGAAGAGAGAGTGGCTGCCCTTCAGAAATTTTCACTGATGAAATCAGGCACAACCTCTCAGAAGTGC
TTCTTGCCACCATGAACATCTTGTTACACAGTTTAAAGAGGCTCAAGGGGACAAGTCCATCCTCGTCATCCAGGC
CCCAGCGAGTCATCGAGGACCGCGACTCTCAACTCCGAAGTCAAGCCCGCACTCTGATTACCTTTGCTGGAATGA
TACCATACCGAACGTCTGGGGACACCAATGCGAGGCTGGTGCAGATGGAGGTCCCTCATGAATTAAGTGCCATGCT
TTGTGGGAGTCTGGGTGCGCACACTGTGAGTACATCAGGCACATGGGCCCACTAGGCTGGGGTTTCTGGTTTTGT
TTCTGTTGTGTTTTGTTTTGGTTTTCTGTATTATGATTTTTGTCAACGCCAATAAATTTCTTTGATTTGT

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FIGURE 4529

MAEEYHRESMLVEWEQVKQRI LHTLLASGEDALDFTQESEPSYISDVGPPGRSSLDNIEMAYARQIYIYNEKIVN
GHLQPNLVDLCASVAELDDKSISDMWTMVKQMTDVLLTPATDALKNRSSVEVRMEFVRQALAYLEQSYKNYTLVT
VFGNLHQAQLGGVPGTYQLVRSFLNIKLPAFLPGLDGEVEGHPVWALIYYCMRCGDLLAASQVVNRAQHQLGEF
KTWFQEYMNSKDRRLSPATENKLRLHYRRALRNNTDPYKRAVYCIIGRCDVTDNQSEVADKTEDYLWLKLNQVCF
DDGTSSPQDRLTLSQFQKQLLEDYGESHFTVNQQPFLLYFQVLFILTAQFEAAVAFLFRMERLRCHAVHVALVLFE
LKLLLKSSGQSAQLLSHEPGDPPCLRRNLNFVRLMLYTRKFESTDPREALQYFYFLRDEKDSQGENMFLRCVSEL
VIESREFDMILGKLENDGSRKPGVIDKFTSDTKPIINKVASVAENKGLFEEAAKLYDLAKNADKVLELMNKLLSP
VVPQISAPQSNKERLKNMALSAERYRAQGISANKFVDSTFYLLDLITFFDEYHSGHIDRAFDIERLKLVLPLN
QESVEERVAAFRNFSDEIRHNLSEVLLATMNLFTQFKRLKGTSPSSSRPQRVIEDRDSQLRSQARTLITFAGM
IPYRTSGDTNARLVQMEVLMN

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FIGURE 4530

GACGTGAACGGTCGTTGCAGAGATTGCGGGCGGCTGAGACGCCGCCTGCCTGGCACCTAGGAGCGCAGCGGAGCC
CCGACACCGCCGCCGCCGCCATGGAGTCCGAGACCGAACCCGAGCCCGTCACGCTCCTGGTGAAGAGCCCCAACCC
AGCGCCACCGCGACTTGGAGCTGAGTGGCGACCGCGGCTGGAGTGTGGGCCACCTCAAGGCCACCTGAGCCGCG
TCTACCCCGAGCGTCCGCGTCCAGAGGACCAGAGGTTAATTTATTCTGGGAAGCTGTTGTTGGATCACCAATGTC
TCAGGGACTTGCTTCCAAAGCAGGAAAAACGGCATGTTTTGCATCTGGTGTGCAATGTGAAGAGTCCTTCAAAAA
TGCCAGAAATCAACGCCAAGGTGGCTGAATCCACAGAGGAGCCTGCTGGTTCTAATCGGGGACAGTATCCTGAGG
ATTCTCAAGTGATGGTTTAAAGGCAAAGGGAAGTTCTTCGGAACCTTTCTTCCCCTGGATGGGAAAACATCTCAA
GGCCTGAAGCTGCCCAGCAGGCATTCCAAGGCCTGGGTCTGGTTTCTCCGGTTACACACCCTATGGGTGGCTTC
AGCTTTCCTGGTTCCAGCAGATATATGCACGACAGTACTACATGCAATATTTAGCAGCCACTGCTGCATCAGGGG
CTTTTGTTCACCAACCAAGTGCACAAGAGATACCTGTGGTCTCTGCACCTGCTCCAGCCCCTATTCAACAACAGT
TTCCAGCTGAAAACAGCCTGCCAATCAGAATGCTGCTCCTCAAGTGGTTGTTAATCCTGGAGCCAATCAAAATT
TGCGGATGAATGCACAAGGTGGCCCTATTGTGGAAGAAGATGATGAAATAAATCGAGATTGGTTGGATTGGACCT
ATTCAGCAGCTACATTTTCTGTTTTTCTCAGTATCCTCTACTTCTACTCCTCCCTGAGCAGATTCTCATGGTCA
TGGGGGCCACCGTTGTTATGTACCTGCATCACGTTGGGTGGTTTCCATTTAGACCGAGGCCGGTTCAGAACTTCC
CAAATGATGGTCCTCCTCCTGACGTTGTAAATCAGGACCCCAACAATAACTTACAGGAAGGCACTGATCCTGAAA
CTGAAGACCCCAACCACCTCCCTCCAGACAGGGATGTACTAGATGGCGAGCAGACCAGCCCCTCCTTTATGAGCA
CAGCATGGCTTGCTTTCAAGACTTTCTTTGCCTCTCTTCTTCCAGAAGGCCCCCAGCCATCGCAAACTGATGGT
GTTTGTGCTGTAGCTGTTGGAGGCTTTGACAGGAATGGACTGGATCACCTGACTCCAGCTAGATTGCCTCTCCTG
GACATGGCAATGATGAGTTTTTAAAAAACAGTGTGGATGATGATATGCTTTTGTGAGCAAGCAAAAGCAGAAACG
TGAAGCCGTGATACAAATTGGTGAACAAAAAATGCCCAAGGCTTCTCATGTCTTTATTCTGAAGAGCTTTAATAT
ATACTCTATGTAGTTTAATAAGCACGTGACGTAGAAGGCCTTAGGTGTTGCATGTCTATGCTTGAGGAACTTTTT
CAAATGTGTGTGCTGCATGTGTGTTTGTACATAGAAGTCATAGATGCAGAAGTGGTTCTGCTGGTACGATTTGA
TTCCTGTTGGAATGTTTAAATTACACTAAGTGTACTACTTTATATAATCAATGAAATTGCTAGACATGTTTTAGC
AGGACTTTTCTAGGAAAGACTTATGTATAATTGCTTTTTTAAATGCAGTGCTTTACTTTAACTAAGGGGAACCTT
TGCGGAGGTGAAAACCTTTGCTGGGTTTTCTGTTCAATAAAGTTTTACTATGAATGACCCTGAAAAAAAAAAAAA
AAAAAAAAA

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FIGURE 4531

MESETEPEPVTL LVKSPNQRRDLELSGDRGWSVGHLKAHL SRVYPERPRPEDQRLIYSGKLLLDHQCLRDLLPK
QEKRHVLHLVCNVKSPSKMPEINAKVAESTE EPAGSNRGQYPEDSSSDGLRQREVLRLNLSSPGWENISRPEAAQQ
AFQGLGPGFSGYTPYGWLQLSWFQQIYARQYYMQYLAATAASGAFVPPPSAQEIPVVSAPAPAPIHNQFPAENQP
ANQNAA PQVVNPGANQNLRMNAQGGPIVEEDDEINRDWLDWTYSAATFSVFLSILYFYSSLRFLMVMGATVVM
YLHHVGWFFFRPRPVQNFPNDGFFPDVVNQDPNNNLQEGTDPETEDPNHLPPDRDVL DGEQTSPSFMSTAWLVFK
TFFASLLPEGPPAIAN

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FIGURE 4532

CCCGAGCGGCTGGGAGCGCACGCGAGCGGGCCGTGGCCGCGCGGGCAGCGCCCTGAGCCTGTCCCGCGCCCGCGG
GCCCGGCCGAGCAGGAGCAGCTCCCGGGGATGCCCGGGCGGGCTCGGAGCGCGGGCAGCGGCAGCCGTGCGGTGAG
GGCGGTGGCGCCCGCGGGACCTGCGACTGCCAGGAACCTCCTGCCACCGCCACCGGCTCCCATGGCCCACATACCC
AGTGGGGGTGCCCCAGCAGCGGGGGCAGCCCCCATGGGCCCCCAGTATTGCGTGTGCAAGGTGGAGCTGTCAGTG
AGTGCCAGAACCTACTGGACCGGGATGTTACCTCCAAGTCCGACCCCTTCTGTGTCCTCTTTACAGAGAACAAT
GGCAGATGGATCGAGTACGACAGGACAGAAACCGCGATCAACAACCTCAACCCCGCCTTCTCCAAGAAGTTCGTG
CTTGACTACCACTTCGAGGAGGTACAGAAGCTCAAGTTTCGCGCTCTTTGACCAGGACAAGTCCAGTATGCGGCTG
GACGAGCATGACTTCCTGGGCCAGTTCTCCTGCAGCCTGGGCACGATCGTCTCCAGCAAGAAGATCACTAGGCCT
CTGCTGCTGCTGAATGACAAGCCTGCGGGGAAGGGCTTGATTACGATCGCTGCCCAGGAGCTGTCCGACAACCGC
GTCATCACACTAAGCCTGGCGGGCAGGAGGCTGGACAAGAAGGACCTCTTTGGGAAGTCAGACCCCTTTCTGGAG
TTTTATAAGCCAGGAGACGATGGCAAGTGGATGCTGGTCCACAGGACTGAGGTGATCAAGTACACACTGGACCCT
GTGTGGAAGCCATTACAGTGCCCTTGGTGTCCCTGTGTGATGGGGACATGGAGAAGCCCATCCAGGTATGTGC
TACGACTATGACAATGACGGGGGCCATGACTTCATCGGCGAGTTCCAGACCTCAGTGTACAGATGTGTGAGGCT
CGAGACAGCGTCCCGCTGGAGTTCGAGTGCATCAACCCCAAGAAGCAGAGGAAGAAGAAGAACTATAAAAACTCG
GGCATCATCATCCTGCGATCCTGCAAGATAAACCGAGACTACTCCTTCCTTGACTACATCCTGGGAGGCTGCCAG
CTCATGTTACCGTTGGAATAGACTTTACAGCCTCCAACGGGAATCCCTTCGACCCCTTCCTCTTTGCACTATATC
AACCCTATGGGCACCAACGAATATCTGTGGCCATCTGGGCTGTTGGGCAGATCATTACGAGCTACGACAGTGAT
AAGATGTTTCCAGCTCTGGGATTCGGGGCCAGTTACCCCGAGCTGGAAGGTCTCCCATGAGTTTGCCATCAAC
TTCAACCCCAACCAACCCCTTCTGCTCAGGTGTGGATGGTATTGCCCAGGCGTACTCAGCTTGCCCTGCCCCACATC
CGCTTCTACGGTCTTACCAATTTCTCCCCCATCGTCAACCACGTGGCCCGGTTTGCGGGCCAGGCCACACAACAG
CGGACGGCCACGCAGTACTTCATCCTCCTCATCATCACGGACGGGGTCATCAGTGACATGGAGGAGACACGGCAT
GCCGTGGTGCAGGCTTCCAAGCTGCCCATGTCCATCATCATCGTGGGCGTGGGCAATGCGGACTTCGCTGCCATG
GAGTTCCTGGATGGGGACAGCCGCATGCTGCGCTCCCACACGGGGGAGGAGGCAGCCCGCGATATTGTGCAGTTC
GTTCCCTTTCGAGAGTTCGCAACGCAGCAAAAGAGACCTTGGCCAAAGCTGTGCTGGCGGAGCTGCCCCAACAA
GTTGTGCAGTATTTCAAGCATAAAAACCTGCCCCCAACCACTCGGAGCCCGCCTGAGCTCCAGTGCCCAGCAGC
AGCATGTCAGCTGAGCCTCCTGCCCTCCCCCAGGAACATGCACGCTCACTCTGCTTCCTTGTTGGGTGGCCTTTT
TTACCGATCCCCCTTTTATTTTTTACAACCGGACCTCCACCCCAACTTCCTCCAGCCAGCTGGGCTTCCTTT
GTTGGAGTCAACTGTTGATGCTTCCAGGCCAACTGGCTTCCTCTCCTCCTCTCCACCTTTGCCATTCTTAAG
TATTGAATGTACTTTGTATAATTTTAGTGGAATTGTTATTGAGAATAAAATTTTTTACAATCAT

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FIGURE 4533

MRLDEHDFLGQFSCSLGTIVSSKKITRPLLLLNDKPAGKGLITIAAQELSDNRVITLSLAGRRLDKKDLFGKSDP
FLEFYKPGDDGKWMLVHRTEVIKYTLDPVWKPFPTVPLVSLCDGDMEKPIQVMCYDYDNDGGHDFIGEFQTSVSQM
CEARDSVPLEFECINPKKQRKKKNYKNSGIIILRSCKINRDYSFLDYILGGCQLMFTVGIDFTASNGNPLDPSSL
HYINPMGTNEYLSAIWAVGQIIQDYDSDKMFPALGFGAQLPPDWKVSHEFAINFNPTNPFCSGVDGIAQAYSACL
PHIRFYGPTNFSPIVNHVARFAAQATQORTATQYFILLIITDGVISDMEETRHAVVQASKLPMSIIIVGVGNADF
AAMEFLDGDSRMLRSHTGEEAARDIVQFVPPREFRNAKETLAKAVLAELPQQVVQYFKHKNLPPTNSEPA

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FIGURE 4534

CGGTGGCGCCGCGCAGTCACCGCGGAGCAGACGCGGAGGCTGGTGGCCCCCTGGGCGAGATGCCGTACGCCAACCA
GCCTACCGTGCGGATCACGGAGCTCACTGACGAGAATGTCAAGTTCATCATCGAGAACACCGACCTGGCGGTGGC
CAATTCGATTTCGGAGGGTCTTCATCGCTGAGGTTCCCATATAAGCCATTGACTGGGTTTCAGATTGATGCCAATTC
CTCAGTTCTTCATGATGAATTCATTGCTCACAGGCTTGGATTAAATCCCTCATTAGTGATGACATTGTGGACAA
GCTGCAGTACTCTCGGGACTGCACATGTGAGGAGTTCTGCCCCGAGTGCTCGGTGGAGTTCACCTTCGATGTGCG
GTGCAATGAAGACCAGACGCGACATGTACGTCTCGAGACCTCATCTCCAACAGCCCCCGGGTCATTCCGGTGAC
ATCCCGGAACCGAGATAATGACCCCAATGACTACGTGGAGCAGGATGACATCCTCATCGTCAAGTTGAGAAAGGG
CCAGGAGCTGAGACTTCGAGCCTATGCCAAAAAGGGCTTTGGCAAGGAGCATGCCAAGTGGAACCTACTGCAGG
GGTGGCTTTTGAATACGATCCAGACAATGCCCTGAGGCACACAGTGTACCCCAAGCCCGAGGAATGGCCAAAGAG
TGAGTACTCGGAGCTGGATGAGGATGAGTCGCAGGCTCCCTATGACCCCAACGGCAAGCCAGAAAGGTTTTACTA
CAATGTGGAGTCCGTGGCTCTCTGCGTCTGAAACCATTTGTCTGTGAGCCCTCTCAGGATTGAAGAAGAACT
GAGTGATTTACAACTCAATTAAGCCACGAGATCCAGAGTGATGTGCTAACCATAAAATTAAGTGCAGCTTGCCCTG
CTTCAGCAAAAACGGAGATTCAGGCCAGCAGCTGGATATGGGGGTCTCTCTTCAGACTCTTCTCGTTTTCTGAGAA
TCTAGTCTACTGTTGGTTGAGCTTCTTGGCAGGACATCAGTACCAACTAGAAGTGGGTTCATAGATAGATTACCAG
GGATGCAGTGGTGTGTTAGGCAGGATAGGTCTTTACTGGCCCTGACTGCTGTTAATAATTGGCAGCAGTGCTCCCC
AGATCCCAGAAGGTCCCTGCTGGAGTGTTCAGTGACCTGTAGGGAACCAACTAGACTTCTCTCCTGGTTAGT
CCAGCTCTTTACTCTAAACCTTTCTGTCCAAAATGAGTCATTTTCAGTTGTACCTTAGATGTCTGGTGTGAGG
ATCAAGTGCCATAGCCTTTATTAGGGGGCCTATAAACCTTCCAGTTCTTGCCCCAGGGCTGGCCTGCTAGCGC
TTCAAATTCCCAGGTGTCCCTAATTTGAGAAGTAACCTTTTGGAAATAGCATTAGACCCTGGCTGTCCCCTCCCCA
CCAAATAAACATGATATTTATTCTCTGTCCAGCAGTCATGAACCCCTTCACCTCCAATGACCTGATCATTTAGT
TTGGTGGGGGTGGGGGTGGGGGTGGGGGTGGAAGCAGCCGAGGAGCAAGGGCCCCCTCCACATACACAGGAGGA
GTATTTCAATTTCTCCTTAATGAAGGCTCTGGCCCTAACCCCTCAGCACTGTCTCCAGATAGGAACATGCACAAAG
CAGTTAATTAGGCAGCCTGGAGAAAACAGAGATCCAGTACAGAAAGGAAAGGATATTTATTGATTAAACAGAAGT
TGTCTTTTTAAAAGTGTGTTATTTTGGCAATAAAGAGCACAAAT

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FIGURE 4535

CCCGGCGCCGCCGCCGCCCTGCCGCCCCGCCAGCCGCGCCGTGACGCGGGCATGAGCCTGCTCCGCGGCGCCGC
TGAGCAGGCGCTCCTGGCCCCGGGCTCGGCGCCAGCAGGCGCGGGGCGAAGGAGCTGCTAGAACAATGCTGAGG
CGGGTGAGGTGAGGAGCAGCCCCCTCGCGGCAGCCCCGACAGAGTGTCTGGAACAGGTGATTGGAGGAGCCGGAGA
CCCAGGCACCTGGGCATCCTTCCCCTCGCCTCTGCCAGGCCCGCGCCCCCTAAAAGGTGGGAAAACCATGGCGAC
CAATTTTCAGTGACATCGTCAAGCAAGGCTACGTGAAGATGAAGAGCAGGAAGCTCGGGATCTACCGGAGGTGCTG
GCTGGTGTTCCGGAATCCTCCAGCAAGGGGCCCCAGCGGCTGGAGAAGTATCCAGATGAGAAGTCGGTGTCCT
CCGGGGCTGCCCCAAGGTGACTGAGATCAGCAACGTCAAGTGTGTTACGCGGCTCCCCAAGGAGACCAAGCGGCA
GGCGGTGGCCATCATATTCACTGATGACTCGGCACGTACCTTACCTGCGACTCAGAGCTAGAGGCAGAGGAGTG
GTACAAGACACTATCTGTGGAGTGTCTGGGGTCCCGCCTCAACGACATCAGTCTGGGAGAACCTGACCTCCTGGC
CCCAGGGGTGCAGTGTGAACAGACAGATCGCTTCAATGTCTTCTGCTGCCCTGCCCAACCTGGACGTGTATGG
CGAGTGCAAGCTGCAGATCACCCACGAGAACATCTACCTCTGGGACATCCACAACCCCCGTGTGAAGCTCGTCTC
GTGGCCCCCTCTGCTCACTGCGCCGCTATGGCCGGGATGCCACACGCTTTACCTTCGAGGCTGGCCGGATGTGTGA
TGCTGGGGAAGGACTCTATACCTTCCAGACACAAGAGGGGGAGCAGATTTACCAGCGCTCCACAGTGCCACCCCT
GGCCATCGCAGAGCAGCACAAGCGGGTCTGCTGGAATGGAGAAGAACGTGAGGCTGCTGAACAAGGGCACGGA
ACATTACTCGTATCCCTGCACACCCACGACCATGCTGCCGCGCAGTGCCCTACTGGCACCATCACTGGTTCCCCA
GAACATCGCCGAAGCCTCCAGCTATGCTGGTGAGGGGTATGGGGCAGCCAGGCCAGCTCGGAAACAGACCTCCT
CAACAGATTTCCTGCTAAAGCCAAAGCCCAGCCAGGGGGACAGCAGTGAGGCCAAGACCCCATCCCAGTGACC
ACAGTGCTGGCGAGCACCGATGACTGCTGGGGGCTGCCTGCTGCGGGGCTGGCTGCAGTGTACCGTGACAGCCT
CAGGGGGCTGTGCGCCAAGAGCCTGGAGAAAGGGAGCAAGCTGCCCCCTCCTTGCCCCCAAGGATGAGGCTGGAC
TGAGGCAAGGGCTGGCCACACCACCTGAGCATGTGTGAGGGGTGGAGCTACCGTGAGGACTATATACTGTAAAT
GATTTTAAATATATATGGCTTATGACATACTCTGTATCAATGAGATCCCCTCACCTCACCCATCCTTCCCCACC
AATACACACAAATTTTTTAAATCCCATGACCAGGCCACGGTCAAGGCTGTTTTTGAGTATGAGTGCACTCGTGTCC
ATCCTCCATGGCACAGCCCTCCTGCTGCCAGGACCTGCTTGAACCTACCAGGGCCACAGGAGGGGGATAATCAGAG
CTTGAGGCTGGCAGCTCTGACTGCTGGCTTTTCCCAAACAGCCCAAGGGCCGGAACAGCAGGTGGCTTCTCAGTTC
CTCTGGGCCTGGAGTGACACAGGAAGGATCTGCACTTCTCTGTGCTGCTTGCCAGCCTTGCACTTGGAGTTTAA
AGCAGAGGTGACATCTGGTTGACGCCTCAGGTGAAAATCTGGTTTTTAAATGTAACCTTCTGCACAGGCTCCTTCC
TGCTTTGTAGGCTGGGAAGATGCCCCTGGGGTAGGGGTGCTGATTACCTCAGCCATGTGGAGGAAGGCTGGAGCT
TGTTTCTGCCCCAGGAATAGGCCAGGAGGGAAGGCCGAGCAGGACTGCCGTGGGGAGCACCCCTGCTGCCCCC
TCTCACTGACCAGGGGTGGACAATGCCCAAGCAGAGGGAGCCCCCTTGCCCTGTTTGCCACCCCTTGCCAGCC
AAAAGCACTCTGAAACCAAGACCTTCCCATTCTCCTCCCCACATGGTGCTGAGGCTCCCTGCTGCAATGCAATT
AAAGCAATTGATTTTCTAGTGCTGGTATTTGTTGACTACCATGCAGAAGGGCTATCTTTCTATTACGTCAAAC
TTTGTTGTGTGGGTTTTTTGTTGTTTTTTGGGTTTTGTTTTTAAATACCTTAGGGTCTGATTTGTGGGAACA
GACCTTCTTGTAATAACCACTATTTGAGTTGTGGCAGGAGGATGATAAAGCACGCGGCCCTCCCAAAGGAGCC
CTTGAGCTAGGGAGGTGGTGAGTCAGCCTCGCTCTCAACGTGACCCGGGGAATGACCACCCAGAGGGATGAGCT
AGCCTGTAGAGGGGAAGTGGGGTCCAAAGGTCTTTGGGGAGGGAGGCAGAGCTGGCTGGCTCAGCTAAGTGGCAC
GATGACGCATGAAGGAGATTATGTTGTGCTCTTTATTGCCAAAAATAAACACTTTTAAAAAGAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 4536

MATNFSDIVKQGYVKMKSRKLGIIYRRCWL VFRKSSSKGPQRLEKYPDEKSVCLRGCPKVTEISNVKCVTRLPKET
KRQAVAIIFTDDSA RTFTCDSELEAE EWYKTL SVECLGSRLNDISLGEPDLLAPGVQCEQTDRFNVFLLPCPNLD
VYGECKLQITHENIYLWDIHNPRVKLVSWPLCSLRRYGRDATRFTFEAGRMCDAGEGLYTFQTQEGEQIYQRVHS
ATLAIAEQHKRVLLEMEKNVRLLNKGTEHYSYPCTPTTMLPR SAYWHHITGSQNIAEASSYAGEGYGAAQASSET
DLLNRFILLKPKPSQGDSSEAKTPSQ

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FIGURE 4537

ATTTTGTGGGTGGGGCTTCAGGTGCCAGCCAGCTGAAGGATGGCCACCCCTGTGGTCACCAAGACAGCCTGGAAG
TTGCAAGAGATCGTCGCGCATGCCAGCAACGTGTCTCACTGGTGCTGGGCAAAGCCTCCGGGCGGCTGCTGGCT
ACAGGCGGGGATGACTGCCCGTCAACCTGTGGTCCATCAACAAGCCCACTGCATCATGAGCCTGACGGGGCCAC
ACATCCCCAGTGGAGAGCGTCCGCTCAACACCCCCGAGGAGCTCATCGTGGCCGGCTCTCAGTCGGGCTCCATC
CGTGTCTGGGACCTGGAAGCTGCCAAAATTCTTCGCACACTCATGGGACACAAAGCCAACATCTGCAGCCTGGAT
TTCCACCCGTACGGCGAGTTTGTAGCCTCTGGTTCCCAGGACACAAACATCAAGCTCTGGGACATCAGGAGGAAA
GGCTGTGTCTTCCGATACAGGGGGCACAGCCAGGCCGTGCGGTGCTCCGGTTCAGCCCCGATGGGAAGTGGTTG
GCGTCGGCCGAGATGACCACACCGTGAAGCTCTGGGATCTCACTGCCGGCAAGATGATGTCTGAGTTCCCTGGT
CACACGGGGCTGTCAACGTGGTTCGAGTTTACCCCAACGAGTACCTCCTGGCCTCCGGCAGCTCTGACAGGACA
ATCCGCTTCTGGGACCTGGAGAAGTTCCAGGTGGTGTAGCTGCATCGAAGGGGAGCCTGGGCCCGTCAGGAGCGTC
CTCTTCAACCCAGACGGCTGCTGCCTGTACAGCGGCTGCCAGGACTCACTGCGTGTCTACGGCTGGGAACCTGAG
CGGTGCTTTGATGTGGTCTCTGTCAACTGGGGCAAGGTGGCCGACCTGGCCATCTGCAATGACCAGTTGATAGGT
GTGGCCTTCTCCCAGAGCAACGTCTCCTCCTACGTGGTGGATCTGACGCGTGTACCAGGACTGGCACGGTGGCC
CGGGACCCCTGTGCAGGACCACCGGCCCTGGCACAGCCACTGCCCAACCCAGCGCCCCCTCCGGCGCATCTAT
GAGCGGGCCAGCACAACTGCAGCAAGCCTCAGAGGGTGAAGCAGA ACTCAGAGAGCGAGCGCCGAGCCCCAGC
AGCGAGGATGACCGGGACGAGCGCGAGTCCGCGCGGAGATCCAGAACGCCGAGGACTACAACGAGATCTTCCAG
CCCAAGAACAGCATCAGTCGGACGCCACCCCGGAGAAGTGAGCCCTTCCCTGCACCCCGAGAGGACGACGCAGCC
ACAGCAAAGGAGGCAGCAAAGCCAGCCCTGCCATGGATGTGCAGTTCCCGGTGCCAAATCTGGAGGTCTTGCCC
CGGCCCCCAGTGGTTGCTTCCACACCTGCACCCAAGGCTGAGCCTGCCATCATCCCTGCCACCCGGAACGAGCCC
ATCGGGCTGAAGGCCTCCGACTTCTTCCCCGCGGTGAAGATCCCCCAGCAGGCGGAGCTGGTGGACGAGGATGCC
ATGTACAGATCCGCAAAGGCCACGACACCATGTGTGTGGTGTCTACCAGCCGCCACAAGAACCTGGACACTGTG
CGGGCTGTGTGGACCATGGGCGACATCAAGACGTGGTGGACTCCGCTGTGGCCATCAACGACCTGTGGTGGTG
GTGGACCTCCTGAACATCGTCAACCAGAAAGCCTCCCTGTGGAAGCTGGACCTGTGCACCACCGTCTGCCACAG
ATTGAGAAGCTTCTGCAGAGCAAGTATGAGAGCTACGTCCAGACGGGCTGCACCTCCCTGAAGCTGATCCTGCAG
CGGTTTCTGCCCCCTCATCACAGACATGCTGGCGGCCCCACCCTCTGTGGGTGTGGATATCAGCAGGGAGGAGAGG
CTGCATAAGTGCCGGCTCTGCTACAAGCAGCTTAAGAGCATCAGCGGCCTGGTCAAGAGCAAGTCAGGCCTGAGC
GGCCGCCATGGCAGTACCTTCCGCGAGCTGCACCTGCTCATGGCCAGTCTGGACTGAGGAAAGCAGTGGGCAGGG
GCGCTCGGCAGCCACAGGGCCTGGCCTCAGCCCCACTCCTGTTCCTTGTGCACCCACTGGCCATGAGCCTCT
GCCTGGCCCCCTGTGCTGTCTGTGGCCGTCTTGAGGAGGTGATGCTGGTCCCTGGCCACTCTACAGCCCTGA
ACTCTTGAGACA ACTCTCTCCAGCAATAGCTGCCAGCTTTGCCCACTGTGTCTTCTGGGGCAGCGAACTGAG
CCCTGGGGCTGCTGCTGTAATTTATAAGGCAAATTTTATTAAATTTGTA ACTATT

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FIGURE 4539

CCGCTTCCCCGTCTTGTAACCCCTAACTCCTGAGGCTCCTCCGAATCACGCGAGTGGAAGCGGAGAAGCTCAAG
TGGCCGCCATGTCAGAGGCTTATTTCCGAGTGAGTCCGGTGCGCTGGGGCCTGAGGAGAACTTTCTTTCTTTGG
ACGACATCCTGATGTCCCACGAGAAAGCTGCCGGTGCGCACGGAGACCGCCATGCCTCGCCTTGGCGCTTTCTTCC
TGGAGCGGAGCGCAGGCGCCGAGACTGACAACGCGGTCCCACAGGGTTCCAAGCTTGAAGTACCCTTGTGGCTGG
CAAAAGGACTTTTGTACAACAAGCGACGGATCCTTTCTGTGGAATCCCCAAGATCTACCAAGAGGGTTGGAGGA
CTGTGTTCAAGTGCAGATCCCAATGTGGTGGACCTCCACAAAATGGGGCCCCATTTCTACGGGTTTGGCTCCCAGC
TCTGCAATTTTACAGTCCCAGAAATGCAGACATTTCCAGTCTCTGCTGCAGACTTTTATCGGACGTTTTTCGCC
GCATCATGGACTCCTCACAGAATGCTTACAACGAAGACACTTCAGCCCTGGTAGCCAGGCTAGACGAGATGGAGA
GGGGCTTATTTCAAACAGGGCAGAAAGGACTGAATGACTTTCAAGTGTGGGAGAAGGGGCAGGCTTCTCAGATCA
CAGCTTCCAACCTCGTTTCAAGATTACAAGAAGAGAAAATTCAGTGATATGGAAGACTGAAAGCCGGAAGAACACA
GAATGGCTCCTCACAGACGTATCCCTCCGTGTGTCTTGATAGGAGCTGGTTGACCTTGTACAGAACCAAGATCC
TGTCCCATTTTATGGCTTATTTCTGTGGCCATAGAGAATTATAGGGAACTGGACATGCTGGAGGATGTGGGTGT
CCCTGGCTCTGTGAGTCTTCCAGGACCGTCCCACCTGCTGACCCACAGCCCAGGCCCTTTAACCAAGAACCCA
TGGCCAAGGAGAAATCAAAGTCTTCCATAAATAAGAATCACTGCCATATAATATATCACAGTAGAGTTGCAACTG
AGATTCCTTGTGTCTGGGAGTTTGGACAGCTTCAGATGTACAGTTTCACTAGCCACAAAGCACAGGTACAAACTG
GGTCATCGCCTGTTTCAAAAATGCTCTCTTGATCTTATTTGCCTCATCTTCTCATGGTTGTACAGAGGATAGCA
CCCCACCATGCCAGCCTGACTTGGAGATATCTCCTGCTGCCTGCCTGCAGGGAGTTACCCAGTTTCCAAAAACA
GTCGCCCAGATAAAGGAGGAAAAGGGAAAGGCAGACGAATGGCATGGCTTTTACTAAAGAAAAGATGTTGGCCTC
ATACTCTATACTCAGGGCTTAATGAACTGGAATCTGCATAACTCAGCAGTCAACCCAGAAGGGAAATGGTTAAAC
TGAGCTTGTTATTGCCTCGGAGAGCCTAAGAGCACCCGCACACTTAATTCTACTCCCTGTCTAGAAAAGCTGTCA
GGGAGTCGTTTGAATTGCAATGTAGTTATTAAGGGCTGTTAACCAGCCTGCATTACATCTGGAAGTCAGGACTT
GGGTGCTGACTATGAAGGGCCCTGTTTTCAAATCTAACATTGCAAGTGTAATGGGCAAGAAGCCTCCGTTGTG
CTTTTTTTTTCTCTTTCAGTAACTTTTGCAACATTATTGCATAGAAGATCCCTGACCATTACTAGGAACCTGGT
TAAGCAAGCACTAATCTCTTTTCTGGAGATCAAGGATGCAACCTCAGGTTGAGAAAAGAAACAGGGTTCCCTGGG
CCCATTAGACTGTTTGCAGGGCATCACTGCTTCCCCCTGACACCTCACAACTAGCAAAAATTTGCTTTTGTCTTTG
GAAATTATAGAGGGATTGGGTATCCAGATTGTGCAGATGCAAACTTAGGCTGTCTTGATGCAAACTTAGAACCA
CAGAAATGCTTTTAAATGCCTGTTTTAAGATGGAATTGTTGTTTTATAATTTGATTTTAGTGCTAAATAAATG
ATTGGCTTTGTACATGAATATGTTCTGTACAAGTGCTCTTCTACTAGTACTACAGATAATCAAAGCTATCAGAAAT
TGTGTCTTTGATCATATTTGACGGTAATACACAAATAAATCCATGTTTTAGCAAAAAAAAAAAAAAAAAAAAAA
A

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FIGURE 4540

MSEAYFRVESGALGPEENFLSLDDILMSHEKLPVRTETAMPRLGAFFLERSAGAETDNAVPOGSKLELPLWLAKG
LFDNKRRILSVELPKIYQEGWRTVFSADPNVVDLHKMGPHFYGFSGQLLHFDSPENADISQSLQLTFIGRFRRIM
DSSQNAYNEDTSALVARLDEMERGLFQTGQKGLNDFQCWEKGQASQITASNLVQNYKKRKFTDMED

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FIGURE 4541

GGTCCACCATGGCCCTGCTGCACTCCGGCCGCGTCCTCCCCGGGATCGCCGCCGCTTCCACCCGGGCCTCGCCG
CCGCGGCTCTGCCAGAGCCAGCTCCTGGTGGACCCATGTGGAAATGGGACCTCCAGATCCCATTCTGGGAGTCA
CTGAAGCCTTTAAGAGGGACACCAATAGCAAAAAGATGAATCTGGGAGTTGGTGCTACCGGGATGATAATGGAA
AGCCTTACGTTCTGCCTAGCGTCCGCAAGGCAGAGGCCAGATTGCCGCAAAAAATTTGGACAAGGAATACCTGC
CCATTGGGGGACTGGCTGAATTTTGCAAGGCATCTGCAGAACTAGCCCTGGGTGAGAACAGCGAAGTCTTGAAGA
GTGGCCGGTTTGTCACTGTGCAGACCATTCTGGAACTGGAGCCTTAAGGATCGGAGCCAGTTTTCTGCAAAGAT
TTTTTAAGTTACGCCGAGATGTCTTTCTGCCCAAACCAACCTGGGGAAACCACACACCCATCTTCAGGGATGCTG
GCATGCAGCTACAAGGTTATCGGTATTATGACCCCAAGACTTGCGGTTTTGACTTCACAGGCGCTGTGGAGGATA
TTTCAAAAATACCAGAGCAGAGTGTTCTTCTTCTGCATGCCTGCGCCCAATCCACGGGAGTGGACCCGCGTC
CGGAACAGTGGAAGGAAATAGCAACAGTGGTGAAGAAAAGGAATCTCTTTGCGTTCTTTGACATGGCCTACCAAG
GCTTTGCCAGTGGTGATGGTGATAAGGATGCCGGGCTGTGCGCCACTTCATCGAACAGGGCATTAAATGTTTGCC
TCTGCCAATCATATGCCAAGAACATGGGCTTATATGGTGAGCGTGATAGGAGCCTTCACTATGGTCTGCAAAGATG
CGGATGAAGCCAAAAGGGTAGAGTCACAGTTGAAGATCTTGATCCGTCCCATGTATTCCAACCTCCCCCTCAATG
GGGCCCGGATTGCTGCTGCCATTCTGAACACCCAGATTGCGAAAAACAATGGCTGCAAGAAGTGAAAGTCATGG
CTGACCGCATCATTGGCATGCGGACTCAACTGGTCTCCAACCTCAAGAAGGAGGGTTCCACCCACAATTGGCAAC
ACATCACCGACCAAATTGGCATGTTCTGTCTTACAGGGCTAAAGCCTGAACAGGTGGAGCGGCTGATCAAGGAGT
TCTCCATCTACATGACAAAAGATGGCCGCATCTCTGTGGCAGGGGTACCTCCAGCAACGTGGGCTACCTTGCCC
ATGCCATTACACAGGTACCAAGTAAATGTCCTGGTGCGAGGAAACAGAGACAACCTTTCTGTCTTCAGCCTCTG
CTATTGAGAGCTTCACACAGACAATGAGAGAGGGTGGATGGTGGTGAGTGGATCATTCTTTTCAGCCACAGTGTG
TAACACTCAGCATTTGAATGTTTCTCAGAAAAGAACATGTAGTGACACAGGGCAGAGGCATCCATGGCTGGCGTC
TGGAATATTAAACCAAACCTCTCCCCGGTCCTTTTTTCTCCAACCTTTCTCAAAGAGTTTACATGTGCAAGAAAGT
CATCGCACCAAAAAACCTGTCAATTATGCCATTGCAATATTTCAGAAGCTTTAACTGAAGTGTCAGGTTCTCTCGT
GAGAAACAGCACACGTTAGAGGCTTTGAGAGAAGGCCTAGTTCTGTGATGAGTAGTCGGCCTCGTGTCTGTCTCCTC
CCATCTTGGAAACAACCTTATCAACAGGCCGCACCTGCAGAAATGATGTTTTATGAAAACCAATGAGGCTGCTGCCA
CTCCAGCAAGGGAAATAATGCAGTTTCTGTCTTATTTAAGAAAAAGAGAAGGCTCTCTTTTCTCCCTTGTCTATT
GCCGTTCTTTTCTTACACGCAAAAGATTTTTTAACTATTGCAGATTTTCATCCCATCTACTGCTTGATTGACCA
TCAACTCCATCCTATCGAGATTTATTTAAGAATGAAGAACATAATTTTCTGCTGATGCTGTACCCCTACCCTTTT
CAGCAAAGAATAGTGGAGAGTAGGAACTGTACTTTATCTCGGCATCCTCTTGAATGATAGTGCAAGTTTTCTCCA
GTTGGGATGTTGTCTCTGCCCGGTTGGACCTCTCCCTTTGTTGAATGTGGTGTCAGCCTCTCATCTCACACTG
TGAGTCCAGCGCGCAGGGTGGTACCAGGAAAGAGGATATTCTAGGCTTTGCGTGCTGCTAGCTGGGTTACGGCT
TCACCCACTGGAAGAACCACCATCTGCTCTAACCATGTAGACTTATTGCGGCCTGGTTTTCTCTGTTACAATAAA
ATTACTGTAGACCC

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FIGURE 4542

MALLHSGRVLPGIAAAFHPGLAAAASARASSWTHVEMGPPDPILGVTEAFKRDTNSKKMNLGVGAYRDDNGKPY
VLPSVRKAEAQIAAKNLDKEYLPIGGLAEFCKASAEALGENSEVLKSGRFVTVQTISGTGALRIGASFLQRFFK
FSRDVFLPKPTWGNHTPIFRDAGMQLQGYRYYDPKTCGFDFGTGAVEDISKIPEQSVLLLHACAHNPTGVDPRPEQ
WKEIATVVKKRNLF AFFDMAYQGFASGDGDKDAWAVRHFIEQGINVCLCQSYAKNMGLYGERVGAF TMVCKDADE
AKRVESQLKILIRPMYSNPPLNGARIAAAI LNTPD LRKQWLQEVKVMADRIIGMRTQLVSNLKEGSTHNWQHIT
DQIGMFCFTGLKPEQVERLIKEFSIYMTKDGRISVAGVTSSNVGYLAHAHQVTK

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FIGURE 4543

ATCTGCAGTGGAGCCGCCACCAAAATGCAGATTTTCGTGAAAACCCCTTACGGGGAAGACCATCACCCCTCGAGGTT
GAACCCTCGGATACGATAGAAAATGTAAAGGCCAAGATCCAGGGTAAGGAAGGAATTCCTCCTGATCAGCAGAGA
CTGATCTTTGCTGGCAAGCAGCTGGAAGATGGACGTACTTTGTCTGACTACAATATTCAAAGGAGTCTACTCTT
CATCTTGTTGAGACTTCTGGTGGTGCTAAGAAAAGGAAGAAGAAGTCTTACACCACTCCCAAGAAGAATAAGC
ACAAGAGAAAAGAAGGTTAAGCTGGCTGTCCTGAAATACTATAAGGTGGATGAGAATGGCTTTATGGCAAGCCACT
TTGACAGACATTATTGTGGCAAATGTTGTCTGACTTACTGCTTCAACAAACCAGAAGACAAGTAAGTGTATGAGT
TAATAAA

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FIGURE 4544

ATGGCGGACCTTGATTGCGCTCCGAAGCTGTCAGGGGTGCAGCAGCCGCTCTGAGGGGGTGGGAGGTGGCCGCTGC
TCCGAAATCTCCGCTGAGCTCATTGCTCCCTGACAGAGCTGCAGGAGCTGGAGGCTGTATACGAACGGCTCTGC
GGCGAGGAGAAAAGTGGTGGAGAGAGAGCTGGATGCTCTTTTGGAAACAGCAAAACACCATTGAAAGTAAGATGGTC
ACTCTCCACCGAATGGGTCCCTAATCTGCAGCTGATTGAGGGAGATGCAAAGCAGCTGGCTGGAATGATCACCTTT
ACCTGCAACCTGGCTGAGAATGTGTCCAGCAAAGTTTCGTGAGCTTGACCTGGCCAAGAACC GCCTCTATCAGGGC
ATTCAGAGAGCTGATGACATCTTGGACCTGAAGTTCTGCATGGATGGAGTTCAGACTGCTTTGAGGAGTGAAGAT
TATGAGCAGGCTGCAGCACATACTCATCGCTACTTGTGCCTGGACAAGTCGGTCATTGAGCTCAGCCGACAGGGC
AAAGAGGGGAGCATGATTGATGCCAACCTGAAATTGCTGCAGGAAGCTGAGCAACGCTCTCAAAGCCATTGTGGCA
GAGAAGTTTGCCATTGCCACCAAGGAAGGTGATCTGCCCCAGGTGGAGCGCTTCTTCAAGATCTTCCC ACTGCTG
GGTTTGCATGAGGAGGGGATTAAGAAAGTTCTCGGAGTACCTTTGCAAGCAGGTGGCCAGTAAAGCTGAGGAGAAT
CTGCTCATGGTGTCTGGGGACAGACATGAGTGATCGGAGAGCTGCAGTCATCTTTGCAGATACACTTACTCTTCTG
TTTGAAGGGATTGCCCGCATTGTGGAGACCCACCAGCCAATAGTGGAGACCTATTATGGGCCAGGGAGACTCTAT
ACCCTGATCAAATATCTGCAGGTGGAATGTGACAGACAGGTGGAGAAGGTGGTAGACAAGTTCATCAAGCAAAGG
GACTACCACCAGCAGTTCGGGCATGTTCAGAACAACTGATGAGAAATTCTACAACAGAAAAATCGAACCAAGA
GAACTGGACCCCATCCTGACTGAGGTCAACCCTGATGAATGCCCGCAGTGAGCTATACTTACGCTTCCTCAAGAAG
AGGATTAGCTCTGATTTT GAGGTGGGAGACTCCATGGCCTCAGAGGAAGTAAAGCAAGAGCACCAGAAGTGTCTG
GACAACTCCTCAATAACTGCCTTTTGAGCTGTACCATGCAGGAGCTAATTGGCTTATATGTTACCATGGAGGAG
TACTTCATGAGGGAGACTGTCAATAAGGCTGTGGCTCTGGACACCTATGAGAAGGGCCAGCTGACATCCAGCATG
GTGGATGATGTCTTCTACATTGTTAAGAAGTGCATTGGGCGGGCTCTGTCCAGCTCCAGCATTGACTGTCTCTGT
GCCATGATCAACCTCGCCACCACAGAGCTGGAGTCTGACTTCAGGGATGTTCTGTGTAATAAGCTGCGGATGGGC
TTTCCTGCCACCACCTTCCAGGACATCCAGCGCGGGGTGACAAGTGCCGTGAACATCATGCACAGCAGCCTCCAG
CAAGGCAAAATTTGACACAAAAGGCATCGAGAGTACTGACGAGGCGAAGATGTCCTTCCTGGGACATATTCTGAGT
CACCTGAGCCACGATAGAGGCTGGGCTGTCCAGCTGTACCTAGAATTCAATCCCCAGAGCACTGGCCAGCTGCT
CAGGAGCCCCACTGAGTGCCAAGCTTGGCTTGCATCTGCCACAGAACCAGCTCTACCATCTGTGCCAGACCACCAG
ACTGCTTCTCTGAGGAGAGGCCCCGAGCATGGGCGAGCGCCAGTCCTTCGGGCCTGCCATCACTGCTCTGCTAGT
ACATGTCTTAGGCTTTCAACTTCCTCTGGAAAGGAGGCTTTATTAAAGCCCTTTGCTACCCAGAATGACAGATGT
GATAAAGCAGCAAGCCTTCCATTGTGTGACAGCTTGGAAGGAGGAGCACAGAAGGATGA

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FIGURE 4545

GGCACGAGGCAGCGTCAGCTGACCTGGGGAGTCGCGATTTCGTGCCGGCCGGTCCTGGTTCTCCGGTCCC GCCCGCT
CCCGCAGCAGCC**ATG**TCGTTCTTCCCGGAGCTTTACTTTAACGTGGACAATGGCTACTTGGAGGGACTGGTGCGC
GGCCTGAAGGCCGGGGTGCTCAGCCAGGCCGACTACCTCAACCTGGTGCACTGCGAGACGCTAGAGGACTTGAAA
CTGCATCTGCAGAGCACTGATTATGGTAACCTTCCTGGCCAACGAGGCATCACCTCTGACGGTGTCAGTCATCGAT
GACCGGCTCAAGGAGAAGATGGTGGTGGAGTTCCGCCACATGAGGAACCATGCCTATGAGCCACTCGCCAGCTTC
CTAGACTTCATTACTTACAGTTACATGATCGACAACGTGATCCTGCTCATCACAGGCACGCTGCACCAGCGCTCC
ATCGCTGAGCTCGTGCCCAAGTGCCACCCACTAGGCAGCTTCGAGCAGATGGAGGCCGTGAACATTGCTCAGACA
CCTGCTGAGCTCTACAATGCCATTCTGGTGGACACGCCTCTTGCGGCTTTTTTCCAGGACTGCATTTCAGAGCAG
GACCTTGACGAGATGAACATCGAGATCATCCGAACACCCTCTACAAGGCCTACCTGGAGTCCTTCTACAAGTTC
TGCACCCTACTGGGCGGGACTACGGCTGATGCCATGTGCCCCATCCTGGAGTTTGAAGCAGACCGCCGCGCCTTC
ATCATCACCATCAATTCTTTCGGCACAGAGCTGTCCAAAGAGGACCGTGCCAAGCTCTTTCACACTGTGGGCGG
CTCTACCCTGAGGGCCTGGCGCAGCTGGCTCGGGCTGACGACTATGAACAGGTCAAGAACGTGGCCGATTACTAC
CCGGAGTACAAGCTGCTCTTCGAGGGTGCAGGTAGCAACCCTGGAGACAAGACGCTGGAGGACCGATTCTTTGAG
CACGAGGTAAAGCTGAACAAGTTGGCCTTCCTGAACCAGTTCACCTTTGGTGTCTTCTATGCCTTCGTGAAGCTC
AAGGAGCAGGAGTGTGCAACATCGTGTGGATCGCTGAATGTATCGCCAGCGCCACCGCGCCAAAATCGACAAC
TACATCCCTATCTTCT**TAG**CGTCCTGGCCCAAGGCTCTCAATTGCACTCTTTGTGTGTGTGTGTGTGTGTGTGCGC
GTGTGTGTGCGTGTGTGTGTATGTGGTCTGTGACAAGCCTGTGGCTCACCTGCCTGTCCGGGGTGTAGTACGCTG
TCCTAGCGGCTGCCCAGTTCTCCTGACCCTCTTAGAGACTGTTCTTAGGCCTGAAAAGGGGCTGGGCACCCCCC
CCACCAAGGATGGACGAAGACCCCCCTCCAGAGCAAGGAGGCCCTCAGCCCTGTGGTTACAGCCGCTGATGTAT
CTAAGAAGCATGTCACTTTCATGTTCCCTCCCTAACTCCCTGACCTGAGAACCCTGGGGCCTGGGGCAGTTTGAG
CCTCCTCTCCCTTCTGTGGGTCGCTCCCAGAGCCATGGCCCATGGGAAGGACAGAGTGTGTGTGTCTTGGGGCC
TGGGGGGATGTTGCTCCTCAGCTCCCTCCCTCAGCCCTGCCCCTCTGAGACAATAAACTGCCCTCTCTAAGGCA
AAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 4546

MSFFPELYFNVDNGYLEGLVRGLKAGVLSQADYLNLVQCETLEDIKLHLQSTDYGNFLANEASPLTVSVIDDRLK
EKMVVEFRHMRNHAYEPLASFLDFITYSYMIDNVILLITGTLHQRSIAELVPKCHPLGSFEQMEAVNIAQTPAEL
YNAILVDITPLAAFFQDCISEQDLDEMNIETIRNTLYKAYLESFYKFTLLGGTTADAMCPILEFEADRRAFIITI
NSFGTELSKEDRAKLFPHCGRLYPEGLAQLARADDYEQVKNVADYYPEYKLLFEGAGSNPGDKTLED RFFEHEVK
LNKLAFNLNQFHFGVFYAFVKLKEQE CRNIVWIAECIAQRHRAKIDNYIPIF

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FIGURE 4547

CGCGCCCCAGGCCGGTGTACCCCCGCACTCCGCGCCCCGGCCTAGAAAGCTCTCTCTCCCCGCTCCCCGGCCCCGGC
CCCCGCCCCGCCCCGCCCCAGCCCGCTGGGCGGCCATGGAGCGCTGGCCTTGGCCGTCGGGCGGCGCCTGGCTGC
TCGTGGCTGCCCCGCGCTGCTGCAGCTGCTGCGCTCAGACCTGCGTCTGGGCGCCCCGCTGCTGGCGGCGCTGG
CGCTGCTGGCCGCGCTCGACTGGCTGTGCCAGCGCCTGCTGCCCCGCGCGGCCGCACTCGCCGTGCTGGCCGCCG
CCGGCTGGATCGCGTTGTCCCGCCTGGCGCGCCCCGAGCGCCTGCCGGTGGCCACTCGCGCGGTGCTCATACCG
GCTGTGACTCTGGTTTTGGCAAGGAGACGGCCAAGAACTGGACTCCATGGGCTTCACGGTGTGGCCACCGTAT
TGGAGTTGAACAGCCCCGGTGCCATCGAGCTGCGTACCTGCTGCTCCCTCGCCTAAGGCTGCTGCAGATGGACC
TGACCAAACCAGGAGACATTAGCCGCTTGCTAGAGTTACCAAGGCCACACCACCAGCACCGGCCTGTGGGGCC
TCGTCAACAACGCAGGCCACAATGAAGTAGTTGCTGATGCGGAGCTGTCTCCAGTGGCCACTTTCCTGAGCTGCA
TGGAGGTGAATTTCTTTGGCGCGCTCGAGCTGACCAAGGGCCTCCTGCCCCCTGCTGCGCAGCTCAAGGGGCCGCA
TCGTGACTGTGGGGAGCCCCAGCGGGGGACATGCCATATCCGTGCTTGGGGGCCTATGGAACCTCCAAAGCGGCCG
TGGCGCTACTCATGGACACATTCAGCTGTGAACCTCTTCCCTGGGGGGTCAAGGTGAGCATEATCCAGCCTGGCT
GCTTCAAGACAGAGTCAGTGAGAAACGTGGGTGAGTGGGAAAAGCGCAAGCAATTGCTGCTGGCCAACCTGCCTC
AAGAGCTGCTGCAGGCCTACGGCAAGGACTACATCGAGCACTTGCTGAGGAGTTCTGCACTCGCTACGCCTGG
CCATGTCCGACCTCACCCAGTTGTAGATGCCATCACAGATGCGCTGCTGGCAGCTCGGCCCCGCGCCGCTATT
ACCCCGGCCAGGGCCTGGGGCTCATGTACTTCATCCACTACTACCTGCCTGAAGGCCTGCGGCGCCGCTTCTGCG
AGGCCTTCTTCATCAGTCACTGTCTGCCTCGAGCACTGCAGCCTGGCCAGCCTGGCACTACCCACCACAGGACG
CAGCCCAGGACCCAAACCTGAGCCCCGGCCCTTCCCCAGCAGTGGCTCGGTGAGCCATGTGCACCTATGGCCCAG
CCACTGCAGCACAGGAGGCTCCGTGAGCCTTGGTTCTCCCCGAAAACCCCCAGCATTACGATCCCCAAGTGTC
CTGGACCCTGGCCTAAAGAATCCCAACCCCACTTCATGCCCACTGCCGATGCCCAATCCAGGCCGGTGAGGCCA
AGGTTTCCCACTGAGCCTCTGCGCCTCTCCACTGTTTCATGAGCCAAACACCCTCCTGGCACAACGCTCTACCC
TGCAGCTTGGAGAACTCCGCTGGATGGGAGTCTCATGCAAGACTTCACTGCAGCCTTTCACAGGACTCTGCAGAT
AGTGCTCTGCAAACTAAGGAGTGAAGTGGTGGGTTGGGGACCCCTCAGGATTGTTTCTCGGCACCACTGCCTC
AGTGCTGCAATTGAGGGCTAAATCCCAAGTGCTCTTGAAGTGGCTCAAGAATTAGGGCCCCAACTACACACCCCC
AAGCCACAGGGAAGCATGTACTGTACTTCCCAATTGCCACATTTTAAATAAAGACAAATTTTTATTCTTCTA

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FIGURE 4548

MERWPWPSGGAWLLVAARALLQLLRSDLRLGRPLLAALALLAALDWLCQRLPPPAALAVLAAAGWIALSRLARP
QRLPVATRAVLITGCDSGFGKETAKKLDSMGFTVLATVLELNSPGAIELRTCCSPRLRLLQMDLTKPGDISRLLE
FTKAHTTSTGLWGLVNNAGHNEVVADAELSPVATFRSCMEVNFFGALELTKGLLPLLRSRGRIVTVGSPAGDMP
YPCLGAYGTSKAAVALLMDTFSCCELLPWGVKVSIIQPGCFKTESVRNVGQWEKQKQLLLANLPQELLQAYGKDYI
EHLHGQFLHSLRLAMSDLTPVVDAITDALLAARPRRRYYPGQGLGLMYFIHYLPEGLRRRFLQAFFISHCLPRA
LQPGQPGTTFPQDAAQDPNLSPGPSPAVAR

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FIGURE 4549A

AGTGGCGTCGGAACCTGCAAAGCACCTGTGAGCTTGCGGAAGTCAGTTTCAGACTCCAGCCCGCTCCAGCCCGGCC
 GACCCGACCGCACC CGCGCTGCCCTCGCTCGGCGTCCCCGGCCAGCCATGGGCCCTTGGAGCCGCAGCCTCTC
 GGCGCTGCTGCTGCTGCTGCAGGTCTCCTCTTGGCTCTGCCAGGAGCCGGAGCCCTGCCACCCTGGCTTTGACGC
 CGAGAGCTACACGTTACGGTGCCCCGGCGCCACCTGGAGAGAGGCCGCGTCTGGGCAGAGTGAATTTGAAGA
 TTGCACCGGTGCACAAAGGACAGCCTATTTTTCCCTCGACACCCGATTCAAAGTGGGCACAGATGGTGTGATTAC
 AGTCAAAAGGCCTCTACGGTTTCATAACCCACAGATCCATTTCTTGGTCTACGCCTGGGACTCCACCTACAGAAA
 GTTTTCCACCAAAGTCACGCTGAATACAGTGGGGCACCACCACCGCCCCCGCCCCATCAGGCCTCCGTTTCTGG
 AATCCAAGCAGAATTGCTCACATTTCCAACTCCTCTCCTGGCCTCAGAAGACAGAAGAGAGACTGGGTTATTCC
 TCCCATCAGCTGCCCGAGAAAATGAAAAAGGCCCATTTCTAAAAACCTGGTTTCAGATCAAATCCAACAAAGACAA
 AGAAGGCAAGGTTTTCTACAGCATCACTGGCCAAGGAGCTGACACACCCCTGTTGGTGTCTTTATTATTGAAAG
 AGAAACAGGATGGCTGAAGGTGACAGAGCCTCTGGATAGAGAACGCATTGCCACATACACTCTCTCTCTCACGC
 TGTGTCTATCCAACGGGAATGCAGTTGAGGATCCAATGGAGATTTTGATCACGGTAACCGATCAGAATGACAACAA
 GCCCGAATTCACCCAGGAGGTCTTTAAGGGGTCTGTCTATGGAAGGTGCTCTTCCAGGAACCTCTGTGATGGAGGT
 CACAGCCACAGACGCGGACGATGATGTGAACACCTACAATGCCGCCATCGCTTACACCATCCTCAGCCAAGATCC
 TGAGCTCCCTGACAAAAATATGTTTACCATTAAACAGGAACACAGGAGTCACTAGTGTGGTCACCCTGGGCTGGA
 CCGAGAGAGTTTCCCTACGTATACCCCTGGTGGTTCAAGCTGCTGACCTTCAAGGTGAGGGGTTAAGCACAAACAGC
 AACAGCTGTGATCACAGTCACTGACACCAACGATAATCCTCCGATCTTCAATCCCACCACGTACAAGGTGAGGT
 GCCTGAGAACGAGGCTAACGTCTGTAATCACCACACTGAAAGTGAAGTGTGCTGATGCCCCCAATACCCACGCTG
 GGAGGCTGTATACACCATATTGAATGATGATGGTGGACAATTTGTCTGTCACCACAAATCCAGTGAACAACGATGG
 CATTTTGAAGAACAGCAAAGGGCTTGGATTTTGGAGCCAAGCAGCAGTACATTCTACACGTAGCAGTGACGAATGT
 GGTACCTTTTGGAGTCTCTCTCACACCTCCACAGCCACCGTCACCGTGGATGTGCTGGATGTGAATGAAGCCCC
 CATCTTTGTGCTCCTGAAAAGAGAGTGAAGTGTCCGAGGACTTTGGCGTGGGCCAGGAAATCACATCTTACAC
 TGCCAGGAGCCAGACACATTTATGGAACAGAAAATAACATATCGGATTTGGAGAGACACTGCCAACTGGCTGGA
 GATTAATCCGGACACTGGTGCCATTTCCACTCGGGCTGAGCTGGACAGGGAGGATTTTGGACAGTGAAGAACAG
 CACGTACACAGCCCTAATCATAGCTACAGACAATGGTTCTCCAGTTGCTACTGGAACAGGGACACTTCTGCTGAT
 CCTGTCTGATGTGAATGACAACGCCCCATACCAGAACCTCGAATCTATTTCTTCTGTGAGAGGAATCCAAAGCC
 TCAGGTCTATAAACATCATTGATGCAGACCTTCTCCCAATACATCTCCCTTCACAGCAGAACTAACACACGGGGC
 GAGTGCCAACTGGACCATTTCAGTACAACGACCCCAACCAAGAATCTATCATTTTGAAGCCAAAGATGGCCTTAGA
 GGTGGGTGACTACAAAATCAATCTCAAGCTCATGGATAACCAGAATAAAGACCAAGTGACCACCTTAGAGGTGAG
 CGTGTGTGACTGTGAAGGGGCCGCGGCGTCTGTAGGAAGGCACAGCCTGTGGAAGCAGGATTGCAAATTCCTGC
 CATTTCTGGGGATTCTTGGAGGAATTTCTTGGCTTTGCTAATTTCTGATTCTGCTGCTCTTGGCTGTTTCTTCGGAGGAG
 AGCGGTGGTCAAAGAGCCCTTACTGCCCCAGAGGATGACACCCGGGACAACGTTTATTACTATGATGAAGAAGG
 AGGCGGAGAAGAGGACCAGGACTTTGACTTGAGCCAGCTGCACAGGGGCTGGACGCTCGGCCTGAAGTGACTCG
 TAACGACGTTGCACCAACCCTCATGAGTGTCCCCCGGTATCTTCCCCGCCCTGCCAATCCCGATGAAATTGGA
 TTTTATTGATGAAAATCTGAAAGCGGCTGATACTGACCCACAGCCCCGCTTATGATTCTCTGCTCGTGTGTTGA
 CTATGAAGGAAGCGGTTCCGAAGCTGCTAGTCTGAGCTCCCTGAACTCCTCAGAGTCAGACAAAGACCAGGACTA
 TGACTACTTTGAACGAATGGGGCAATCGCTTCAAGAAGCTGGCTGACATGTACGGAGGCGGCGAGGACGACTAGGG
 GACTCGAGAGAGGCGGGCCCCAGACCCATGTGCTGGGAAATGCAGAAATCACGTTGCTGGTGGTTTTTTCAGCTCC
 CTTCCCTTGAGATGAGTTTCTGGGGAAAAAAGAGACTGGTTAGTGATGCAGTTAGTATAGCTTTTATACTCTCT
 CCACCTTATAGCTCTAATAAGTTTGTGTTAGAAAAGTTTCGACTTATTTCTTAAAGCTTTTTTTTTTTTCCCATC
 ACTCTTTACATGGTGGTGTATGTCCAAAAGATAACCAAATTTTAAATATTCCAGAAGAACAACCTTTAGCATCAGAAG
 GTTCAACCCAGCACCTTGAGATTTTCTTAAAGGAATTTTGTCTCACTTTTAAAAAGAAGGGGAGAAGTCAGCTACT
 CTAGTTCTGTTGTTTTGTGTATATAATTTTTTAAAAAAATTTGTGTGCTTCTGCTCATTACTACACTGGTGTGT
 CCTCTGCCTTTTTTTTTTTTTTTAAAGACAGGGTCTCATTCTATCGGCCAGGCTGGAGTGCAGTGGTGAATCAC
 AGCTCACTGCAGCCTTGTCTCCAGGCTCAAGCTATCCTTGCACCTCAGCCTCCCAAGTAGCTGGGACCACAGG
 CATGCACCACTACGCATGACTAATTTTTTAAATATTTGAGACGGGGTCTCCCTGTGTTACCCAGGCTGGTCTCAA
 ACTCCTGGGCTCAAGTGATCCTCCCATCTTGGCCTCCAGAGTATTGGGATTACAGACATGAGCCACTGCACCTG
 CCCAGCTCCCCAACTCCCTGCCATTTTTTAAAGAGACAGTTTCGCTCCATCGCCAGGCCTGGGATGCAGTGATGT

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FIGURE 4549B

GATCATAGCTCACTGTAACCTCAAACCTCTGGGGCTCAAGCAGTTCTCCCACCAGCCTCCTTTTTATTTTTTGTGTA
CAGATGGGGTCTTGCTATGTTGCCCAAGCTGGTCTTAAACCTCTGGCCTCAAGCAATCCTTCTGCCTTGGCCCCC
CAAAGTGCTGGGATTGTGGGCATGAGCTGCTGTGCCCAGCCTCCATGTTTTAATATCAACTCTCACTCCTGAATT
CAGTTGCTTTGCCCAAGATAGGAGTTCTCTGATGCAGAAATTATTGGGCTCTTTTAGGGTAAGAAGTTTGTGTCT
TTGTCTGGCCACATCTTGACTAGGTATTGTCTACTCTGAAGACCTTTAATGGCTTCCCTCTTTCATCTCCTGAGT
ATGTAAC TTGCAATGGGCAGCTATCCAGTGACTTGTTCTGAGTAAGTGTGTTCAATTAATGTTTATTAGCTCTGA
AGCAAGAGTGATATACTCCAGGACTTAGAATAGTGCCTAAAGTGCTGCAGCCAAAGACAGAGCGGAAGTATGAAA
AGTGGGCTTGAGATGGCAGGAGAGCTTGTCATTGAGCCTGGCAATTTAGCAAAGTATGCTGAGGATGATTGAG
GTGGGTCTACCTCATCTCTGAAAATTCTGGAAGGAATGGAGGAGTCTCAACATGTGTTTCTGACACAAGATCCGT
GGTTTGTACTCAAAGCCCAGAATCCCCAAGTGCCCTGCTTTTGATGATGTCTACAGAAAATGCTGGCTGAGCTGAA
CACATTTGCCCAATTCCAGGTGTGCACAGAAAACCGAGAATATTCAAATTCCAAATTTTTCTTAGGAGCAAGA
AGAAAATGTGGCCCTAAAGGGGGTTAGTTGAGGGGTAGGGGGTAGTGAGGATCTTGATTGGATCTCTTTTTATT
TAAATGTGAATTTCAACTTTTGACAATCAAAGAAAAGACTTTTGTTGAAATAGCTTTACTGTTTCTCAAGTGTTT
TGGAGAAAAAATCAACCCTGCAATCACTTTTTGGAATTGCTTGTGATTTTTCGGCAGTTCAAGCTATATCGAATA
TAGTTCTGTGTAGAGAATGTCAGTGTAGTTTTGAGTGTATACATGTGTGGGTGCTGATAATTGTGTATTTCTTT
GGGGGTGAAAAGGAAAACAATTCAAGCTGAGAAAAGTATTCTCAAAGATGCATTTTTATAAATTTTATTAAACA
ATTTTGTTAAACCATAAAAAAAAAAAAAA

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FIGURE 4550

MGPWSRSLSALLLLLQVSSWLCQEPEPCHPGFDAESYFTTVPRRHLERGRVLGRVNFEDCTGRQRTAYFSLDTRF
KVGTDGVITVKRPLRFHNPQIHFLVYAWDSTYRKfstKVTlNTVGHHHRPPPHQASVSGIQAELLTFPNSSPGLR
RQKRDWVIPPISCPENEKGFPFKNLVQIKSNKDKEGKVfYSITGQGADTPPVGVfIIERETGWLKVTEPLDRERI
ATYTLFHAVSSNGNAVEDPMEILITVTDQNDNKPEFTQEVFKGSVMEGALPGTSVMEVTATDADDDVNTYNAAI
AYTILSQDPELPDKNMFTINRNTGVISVVTGLDRESFPTYTLVVQAADLQGEGLSTTATAVITVTDNDNPPIF
NPTTYKGQVPENEANVVITTLKVTADAPNTPAWEAVYTLNDDGGQFVVTTNPVNNDGILKTAKGLDFEAKQQY
ILHVAVINNVVPFEVSLTTSTATVTVDVLDVNEAPIFVPPEKRVEVSEDFGVGQEITSYTAQEPDTFMEQKITRYI
WRDTANWLEINPDTGAISTRAELDREDFEHVKNSTYALIIATDNGSPVATGTGTLILLSDVNDNAPIPEPRTI
FFCERNPKPQVINIIDADLPPNTSPFTAELTHGASANWTIQYNDPTQESIILKPKMALEVGDYKINLKLMDNQNK
DQVTTLEVSVCDCEGAAGVCRKAQPVEAGLQIPAILGILGGILALLILILLLLLFLRRRAVVKEPLLPPEDDTRD
NVYYYDEEGGGEEDQDFDLSQLHRGLDARPEVTRNDVAPTILMSVPRYLPRPANPDEIGNFIDENLKAADTDPTAP
PYDSLlLVFDYEGSGSEAASLSSLSSESdKdQdYdYlNEWGNRFKKLADMYGGGEDD

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FIGURE 4551

AGTGCTCGCGGCGGCGGCGACGGCGGCGGGAGGTTTCGGTTGTGCGCCGTTGGCCGCGCGGCGCCGCGCTCGGCGG
CCGCCATTGCAGGGAATCCCTGTGCTGATCGTGGGGCATCATATCCTGTATGGGAAAATCATCCACCTGGAGAAA
CCTTTTGCAGTCCTTGTCAAACACACTCCTGGGGATCAGGACTGTGATGAGCTTGGCCGCGAGACTGGCACCCGG
TACCTGGTGACAGCACTCATCAAAGACAAGATCCTTTTCAAAAACCCGCCCCAAGCCCATATCACCAGCGTCCCC
AAGAAAGTATGAAAGAACCTCGGATTTTCCCTAGAGAGCGGCCAACTCCTTGGACTCGTGCTCCGCTGCCACCTC
GAGGACGGCTCGACGGTTCCCTGGGACCACAGGGGGTCTGTCTGAACACAGGCCACCCACTGGGTGTGAAC
CGGATCCCTTTCCTTATGGCGGCGGTTCTCTTGGTGAAATCTGACCCCATTTCCAAGGAACCCATCTCCTTTTC
CAGCTTCATCAGGCTCATTGGCTTCAAATCCAGCACCTTTCCCGGCTGGTGCTCGTGACCCAAGTATGGCTTCTT
TTCCAAGAGGGATGAATCCCACTGGCACAGGTGCAGTTTCTTTCCCAAGGCCTGGTGGCCTCTTGGGGCCAGGCC
CAGGCCCAGGCCCCACCCATAACCCTAGGACAGGGGCTCTGCCAGGCCCAGGGCCTCTGTCTAACCCACAGGTTAG
GGGGTCTCCAGGACCAGGTCTATGTCCAACCCAGGGCAGGTGGTCTCCTGGGAGCAGGTCTTGACCCAGAG
GTGGTGGTCCCATGGGCCCTGGATCTGGACCTAACCTGAGAGCCGGTGTCTGTAACTCTGGGAATGGTCTCTC
CCAATCCTAGGCCAGTTGGCCTGGGCCCAGGACCAACCCCAATCTGAGATCAGGCTTTTATGGGACAAACCCCTG
CCCCAGGTCAGGTGTGTTTCCAGGCCCAGGCCTTGGGCCCAACCCAGACCAAGTGGCCTGGGCCCAGGCCCTA
ATCTAGATGCCAGAGCAGGTGGCCTCTTGGGCACAGGATCTGGTCTTAACCTAAGAATGGCTGGACCTCAAGGCC
TCGATCTTGCCCCATTCTAAGAGCAGCAGGTCTTTTAGGAGCAAATCAGCTTCTTTCTCACAGGCTTCTGGAA
ACATGGGCACAAGCCCATCCTCCATGGCAAGAGTACCTGGCCCCATGGGCCCAAACCTCGGGTCTAGCTCTCGGG
GAATTGGCCTTCCAGGGCCAAATCCATCTCCATGTCAAGGGCTCCTGGCCCCATAGGCCCTAATCAGCTCATT
TCTCAAGGCCAGTTGGCCCCATGGGGGTAAATGCCAATCCCTTTCCAGGGGAGCAGGTTCACTGCGCTTTTCTC
AGTCTTCTGGCACATTGGCATCAAACCCAGCTACCTTCCAAAGTCCGCTGGCCTCCAGGGCTCAAATCCAACCA
TTTTCCCAAGAGCCTCTGGGCCACTTGGCCCCAACCAGCTAACTTCCCAAGGGCCACTGGCCTGCAGGGTCAA
GTCCAACCTACCTTCCCAAGGTCTACTGGCCCATTAGGCCCTGGTCAAGTTACTTTCCCCAGGCCAGCTGCCGGGC
ATCTGGGCCCTTCTCCAGCTGGCCCTGTGGGTATCAACCCAGCTCCTTTTACAAGGCCAACTGGGACCCCTGGGT
TCAACCCAGCTTCTTTTCCAAGGATGAATGGCCCTGCAGGCAAGAGTTTTCGTCCCATTTCTTAGAGTGGGGAGCC
TCCCTGGCACAAACCCAGCTGCTTTCCCAAGACCAGGGGGTCCAATGGCTGCAATGTACCCAAATGGAATGTTGC
CCCCCTAAACACCATTTTCCCTCCAGGACCACCTTGGTTTCTAGGCACTGTGGTTCTTGGCAGGGGCTGTCTTAG
GTAAAAGGGTAGTTGTGGAGCTACAGTCTGAAGAACATAGCTTGGGCTCAAGTTCAAATGAGCCATCTTTTTCCT
TTGCGTTTTTCTTGAAGGTGAGATGTTATTTGTGGCATGTGAACGTGGCAGGTGGGAATAATCCTGCCCT
TGAGAGAAAGGATCTCCAGCCTCCAGAAGCCTGCTGTGCTTTCGTCCACAGCTTCTGCCCATTGTTTCTTAC
TAGTTTCTTGAATTGTTCTTGTGGACTTTTCTCAGGGATACATTGGCCTGCAGGTCCCAGTTCACATGTAGTCC
CCTGCTCACCATTGGAGAATCAGCTCAGTCTCTAGAAACGTGGCGTTGGTGAACGGACCATGCTTCCGTAGC
TCTGACCTGGGCAGCTTGGACCTGGTCATCCTCTACTGCCATACCTTTCCCTGGGGGCTTGAACACAGAACAGGG
AGATGGACAACCACTTCAAAGAAAGACCCACCGAATGCAGTTTCTGCTTGAAGTGGGCTGGCCTGCAGCTCCCTTC
TCCTGGGACTTAGAGGTGGCCAGATTTAAGGCCCTCTACTCATCCAACCTCCCTCTTCACTGGTACTCCCAATCA
ATCAAAGAACCTCAAATTTAAACTGATGTGGATGGGAATATGGGAATTAGGGTGGGGGTGGGGGATGAAGGGAA
GAAATCACTGTGCTTTGTTCCGCTGGTGTGCAAGGATGGTTGGTGGTTTTCCTGCATTGTATCTTTTCTTACTG
TTTCTTTAATAAATGGGATGAGAGGGC

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FIGURE 4552

MKEPRIFPRERPTPWTRAPLPPRGRLDGS LGPQGGPV LNTGHPLGVNSDPFLMAAGSLGGNLTPFPRNPSPFPAS
SGSLASNPAPFPAGARDPSMASFPRGMNPTGTGAVSFPRPGLLGPGPGPGPTLNPRTGALPGPGPLSNPRLGGL
PGPGPMSNPRAGGLLGAGDPDRGGGPMGPGSGPNLRAGVLLTSGNGPPNPRPVGLGPGPNPNLRSGLGTNPAPR
SGVFPGPGLGPNPRP SGLGPGPNLDARAGLLGTGSGLNLRMAGPQGLDLAPILRAAGLLGANSASFQASGNMG
TSPSSMARVPGPMGPNSG PSSRGIGLPGNPSPMSRAPGPIGPNSAHFSRPVGPMGVNANPFPRGAGSSAFSQSS
GTLASNPATFQRSAGLQGSNPTIFPRASGPLGNPANFPRATGLQGPSPTTFPRSTGPLGPGQVTFPRPAAGHLG
PSPAGPVGINPAPFTTRPTGTLGLNPASFPRMNGPAGKSFVPFPRVGS LPGTNPAAFPRPGGPMAAMY PNGMLPP

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FIGURE 4553

CTCAGTTAGCGGTGGAGAGGCAGTATGTCCGGTTCAATGGCGACTGCGGAAGCTAGCGGCAGCGATGGGAAAGGG
CAGGAAGTCGAGACCTCAGTCACCTATTACCGGTTGGAGGAGGTGGCAAAGCGCAACTCCTTGAAGGAAGTGTGG
CTTGTGATCCATGGGCGAGTCTACGATGTCACCCGCTTCCTCAACGAGCACCCCTGGAGGAGAAGAGGTTCTGCTG
GAACAAGCTGGTGTAGATGCAAGTGAAAGCTTTGAAGATGTAGGACACTCTTCTGATGCCAGAGAAATGCTAAAG
CAGTACTACATTGGTGATATCCATCCGAGTGACCTTAAACCTGAAAGTGGTAGCAAGGACCCCTTCAAAAAATGAT
ACATGCAAAAGTTGCTGGGCATATTGGATTTTACCCATCATAGGCGCTGTTCTCTTAGGTTTCTGTACCGCTAC
TACACATCGGAAAGCAAATCCTCCTGAGGAGGCCTTGCTGAAGTTAGAAAGTGCATCCACTTTGGGGCGAAAAGT
AGAGACTTGCTTGGGGGCTGCAGAAGTGCCCTCTCCTCGAATCCTGCCAGTTGCATTCTTCCCCCTTGGAGCCAA
GACGATTGGCCAGACATCACCTCAGATCTGAGACCAGCGTCTTCCATCTCTCAGAGCCTTACTCCCAAAGTACCT
GCTCACTGTTCCGTGTTGAACAATTGCCGGTGTTCCTCTCTTCACTGGTTTCCATGAGTACCCCTTATATTTTAC
AACTTTCTGTTTCATAAGTTTATAGTGACATTGCTCTTTGGTAAAAATGCCTGCTTTCCAATACTTTGATTGCATAT
TAGACATTCTTAACAGGGCGGCAGTCTAGTGTTGAAAGTTTTATTTTCCATTTTCTTTTAAGTAAATTTTTTT
TAAAAAATTCTGATTTAGGGCTAGGTGTGGTGGCTCAGGCCTGTAATCCTGGCACTTTGGGAGGCCAAGGTGGGA
ACATCGCTTGAGGCCAAGAGTTCAAGACCAGCCTGGGCAACATAGCGAGACCCCTATCTGTATTAAAAAAAATC
TGATTTAATTCTTTTATTTATCATAAGGGGTTTAATTCCTGAAGTAAAGGTTTGACCTATTAACTTAAACTG
CCAAATGATTTTTGTTCTTTTATGTGCGTGATAAAAAATACAAAGAATGGTGTGGCCACCTCCTCCCTTTCAAGCT
AGGGCAGCAGGTAGTCTTCCCAGCCCCTGAGCCCAGCCCCTTCCCAAGTGGTGCCGGACAAAAAAGTACATGGC
CCTTTCGTGCTTGGGGGTGGAAAGGGAGGGATGAATTGGGGTGATAGAACCCTGGTGAATTCAGAGTAATCTTT
CTTTAGAAAAGTGGTGTCTTCTAAAGAAACAGGATAGGAGTTTAGAGAAGGCACCAAAGCTTTCACTTTGGTTTG
GCACCAAGTTTCTAACCATCTGTTTTTCTACCCTAGCTATCTTTTATTGGTAAATATAAATGTATAATTATGTT
TGTAGAGCTTTACCAAGGAGTTTCCCTCCTTTTTTGTGTTGTTGATTAGCAAATTTTGTATTCTCCATTTTCCAA
AAGTAAGAGACTCCAGCATGGCCTTCTGTTTGCCCCGAGTAAAGTAACTTCCATATAAAATGGTATTTGAAAGT
GAGAGTTCATGACAACAGACCGTTTCCATTTTCATCTGTATTTTATCTCCGTGACTCCAACCTTGTGGGTTTGTTC
TGTTTTTCCATGAGAAATAAAATACTGGCGGTTTTTTTTTCAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAA

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FIGURE 4554

MATAEASGSDGKGQEVETSVTYRLEEVAKRNSLKELWLVIHGRVYDVTRFLNEHPGGEEVLLEQAGVDASESFE
DVGHSSDAREMLKQYYIGDIHPSDLKPESGSKDPSKNDTCKSCWAYWILPIIGAVLLGFLYRYTSESKSS

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FIGURE 4555

CACACACCCCTACAATCCCCTCCCCAGCCCCGAGAGACTTTTCTTGACTTCCACCAGTTGCTCCGGCGGGTGAG
AGTGGAGAGGCCCCCTCCTTCATCCCCCAGGCTCCCTCCCTTCCCTGGAGCTGCAGCCTCAGCATCCTCCGCCAGC
ACCCAGGATTAGGCGTTGGGTCCCGCCCTTGTAGGCTGTCCACCTCAAACGGGCGGACAGGATATATAAGAG
AGAATGCACCGTGCACTACACACGCGACTCCCACAAGGTTGCAGCCGGAGCCGCGCCAGCTCACCAGAGGCCTAGT
TCCGGCCAGGGTCGCCCCGGCAACCACGAGCCCAGCCAATCAGCGCCCCGGACTGCACCAGAGCCATGGTCGGCA
GAAGAGCACTGATCGTACTGGCTCACTCAGAGAGGACGTCTTCAACTATGCCATGAAGGAGGCTGCTGCAGCGG
CTTTGAAGAAGAAAGGATGGGAGGTGGTGGAGTCGGACCTCTATGCCATGAACCTCAATCCCATCATTTCAGAA
AGGACATCACAGGTAACTGAAGGACCTGCGAACTTTCACTATCCTGCCGAGTCTGTTCTGGCTTATAAAGAAG
GCCATCTGAGCCCAGATATTGTGGCTGAACAAAAGAGCTGGAAGCCGCAGACCTTGTGATATTCCAGAGTAAGA
AGGCAGTGCTTTCCATCACCCTGGTGGCAGTGGCTCCATGTAATCTCTGCAAGGGATCCACGGGGACATGAATG
TCATTCTCTGGCCAATTAGAGTGGCATTCTGCATTTCTGTGGCTTCCAAGTCTTAGAACCTCAACTGACATATA
GCATTGGGCACACTCCAGCAGACGCCCCGAATTCAAATCCTGGAAGGATGGAAGAAACGCCTGGAGAATATTTGGG
ATGAGACACCACTGTATTTTGCTCCAAGCAGCCTCTTTGACCTAACTTCCAGGCAGGATTCTTAATGAAAAAAG
AGGTACAGGATGAGGAGAAAAACAAGAAATTTGGCCTTTCTGTGGGCCATCACTTGGGCAAGTCCATCCCACTG
ACAACCAGATCAAAGCTAGAAAATGAGATTCCCTTAGCCTGGATTTCTTCTAACATGTTATCAAATCTGGGTATC
TTTCCAGGCTTCCCTGACTTGCTTTAGTTTTTAAGATTTGTGTTTTCTTTTTCCACAAGGAATAAATGAGAGGG
AATCGACTGTATTCGTGCATTTTGGATCATTTTTAACTGATTCTTATGATTACTATCATGGCATATAACCAAAA
TCCGACTGGGCTCAAGAGGCCACTTAGGGAAAGATGTAGAAAGATGCTAGAAAAATGTTCTTTAAAGGCATCTAC
ACAATTTAATTCCTCTTTTTAGGGCTAAAGTTTTAGGGTACAGTTTGGCTAGGTATCATTCAACTCTCCAATGTT
CTATTAATCACCTCTCTGTAGTTTATGGCAGAAGGGAATTGCTCAGAGAAGGAAAAGACTGAATCTACCTGCCCT
AAGGGACTTAACTTGTTTGGTAGTTAGCCATCTAATGCTTGTGTTATGATATTTCTTGCTTTCAATTACAAAGCAG
TACTAATATGCCTAGCACAAGTACCACTCTTGGTCAGCTTTTGTGTTTATATACAGTACACAGATACCTTGAA
AGGAAGAGCTAATAAATCTCTTTGCTGCAGTCATCTACTTTTTTTTAAATTAAAAAAATTTTTTTTTGAAG
CAGTCTTGCTCTGTIACCCAGGCTGGAGTGCAGTGGTGTGATCTCGGCTCACTGCAACCTCTGCCTCCCAGGTTT
CAGCAATTCCTCGCTCAGCCTCCCTAGTAGCTGGGATGACAGGCGCCTGCCATCATGCCTGACTAATTTTTGT
ATTTTTAGTAGAGACGGCTTTCACCATGTTGCCAGGCTGGTCTCGAACTCCTGACCTCAGGTGATCTGCCTGC
CTCAGCCTCCCAAAGTGCTGGGATTACAGGCGTGA

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FIGURE 4556

CTCTCACGCAGCCAACATGGCTCCAGTGGAGCACGTTGTGGCGGATGCTGGGGCTTTCTGCGGCATGCGGCTCT
GCAGGACATCGGGAAGAACATTTACACCATCCGGGAGGTGGTCACTGAGATTGCGGACAAGGCCACACGCAGGCG
GCTCGCTGTCTGCCCTACGAGCTGCGGTTCAAGGAGCCCTTACCGGAATACGTGCGGCTGGTGACTGAGTTTTT
AAAGAAAACAGGAGACTACCCCAGCCTCTCTGCCACGGACATCCAAGTGCTTGCACTCACATACCAGTTGGAAGC
AGAGTTTGTGGGGTGTCTCACCTAAAACAAGAACCACAGAAAGGTTAAGGTGAGCTCATCGATTGAGCAGCCAGA
AACACCTCTGCACATTTCTGGTTTCCATCTGCCCTACAAGCCTAAACCCCCACAAGAAACAGAAAAAGGACACTC
AGCTTGTGAGCCTGAGAACCTGGAATTTAGTTCCCTTCATGTTCTGGAGAAACCCCTTTGCCCAACATCGATCATGA
ACTGCAGGAGCTGCTGATTGACAGAGGTGAGGACGTTCCAAGTGAGGAGGAGGAGGAGGAAGAAAAACGGGTTTGA
AGACAGAAAAGATGACAGCGATGACGACGGGGGTGGCTGGATAACCCCCAGTAACATCAAGCAGATCCAGCAGGA
GCTGGAGCAGTGTGACGTCCCCGAGGACGTGCGGGTTGGCTGCCTGACCACAGACTTCGCCATGCAGAATGTTCT
GCTGCAGATGGGGCTGCACGTGCTGGCGGTGAACGGCATGCTGATTTCGTGAGGCCCGGAGCTACATCTTGCGCTG
CCATGGCTGTTTCAAGACAACGTCTGACATGAGCCGAGTGTCTGCTCACACTGTGGGAACAAGACCCCTGAAGAA
AGTGTCCTGTGACCGTCAGCGACGACGGCACCCCTGCACATGCACTTCTCCCGCAACCCCAAGGTGCTGAACCCCG
CGGCCTCCGGTACTCGCTTCCCCTCCCAAGGGGGCAAATACGCCATCAACCCCATCTCACCGAGGATCAGCG
CTTCCCTCAGCTGCGACTCTCCCAAAAGGCCAGGCAGAAAACCAACGTGTTGCGCCCTGACTACATCGCCGGGGT
GTCACCTTTGTGAGAATGACATCTCCAGCCGCTCAGCTACCTGCAAGTCCGGGACAGCACCTTGGGAGCTGG
GCGGAGACGCTTAAATCCCAACGCTTCCAGAAAGAGTTTGTGAAGAAAAGGTGAAGAGCGAGTTCCCGCAGGCA
AATTGGATGGGCGTCTGGCCGCCGTGGAGTTCCGGTGACCCATTTCCCAGCCGTGTCGTCTCCAGGACCACCCG
ATGGAATAACAGGCGGGCTTACGGTGCGGCTCTGTCCGCCATGCCCCGCTGGGTCTGCAGGGAACCTGGACTG
TCCCATGGCCTGTGAGCACCGGAGCGCCTGGCTGCCTGCCAAGGAAGTGCAATTGCATAAAAACAGAAAGAACAA
CGCCCTGGAGCCAATCTTCAAGAAAGGAATTTCCAAAGGATAATATTTTCTAATAAATGCGGCTGCAACCTCCT
GTGCATTTAATTAAATAGGCCAAATTTTGTGCTTAGGTGATCTCAAGGCTGATACTTGAGCTGTGTGCCCAGA
GATCATGCATTTAGATTTATATTTTGCCAGAAAATACAAGGTTATAATAAACTAAGAACTACCAAAAAAAAAA
AAAAAAA

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FIGURE 4557

MAPVEHVADAGAF LRHAALQDIGKNIYTIREVVTEIRDKATRRRLAVLPYELRFKEPLPEYVRLVTEFSKKTGD
YPSLSATDIQVLALTYQLEAEFVGVS HLKQEPQKVKVSSSIQHPETPLHISGFHLPYKPKPPQETEKGHSACEPE
NLEFSSFMFWRNPLPNIDHELQELLIDRGEDVPSEEEEEENG FEDRKDDSDDDGGGWITPSNIKQIQQELEQCD
VPEDVRVGCLTTDFAMQNVLLQMGLHVLAVNGMLIREARSYILRCHGCFKTTSDMSRVFCSHCNKTLLKKVSVTV
SDDGTLHMHFSRNPVKVLNPRGLRYS LPTPKGGKYAINPHLTEDQRFPQLRLSQKARQKTNVFAPDYIAGVSPFVE
NDISSRSATLQVRDSTLGAGRRRLNPNASRKKFVKKR

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FIGURE 4558

CTTTTCTCGGGACGGGAGAGGCCGTGTAGCGTCGCCGTTACTCCGAGGAGAGACCAGTCGGTAGAGGAGAAGTCC
AGGTTAGAGGGAAGTGGGAGGCACCTTTGCTGTCTTCAATCGAAGTTGAGGGTGCAAAATGCAGAGTAATAAAC
TTTTAACTTGGAGAAGCAAAACCATACTCCAAGAAAGCATCATCAACATCACCACCAGCAGCAACAGCTGCAGCC
GCCACCACCGCCAATACCTGCAAATGGGCAACAGGCCAGCAGCCAAAATGAAGGCTTTGACTATTTGGCCTGAAG
AATTTTAGAAAACCAGGAGAGAAGACCTTCACCCAACGAAGCCGCTCTTTTGTGGGAAATCTTCCTCCCGACATC
ACTGAGGAAGAAATGAGGAAACTATTTGAGAAATATGGAAGGCAGGCCAAGTCTTCATTTCATAAGGATTAAGGA
TTTGGCTTTATCCGCTTGGAAACACGAACCCTAGCGGAGATTGCGAAAGTGGAGCTGGACAATATGCCACTCTGT
GGAAAGCAGCTGCGTGTGCGCTTTTCTGCCATAGTGCATCCCTTACAGTTCGAAACCTTCCTCAGTATGTGTCC
AACGAAGTGCTGGAAGAAGCCTTTTCTGTGTTTGGCCAGGTAGAGAGGGCTGTAGTCATTGTGGATGATCGAGGA
AGGCCCTCAGGAAAAGGCATTGTTGAGTTCTCAGGGAAGCCAGCTGCTGGGAAAGCTCTGGACAGACGCAGTGAA
GGCTCCTTCTGCTAACCACATTTCTCGTCCTGTGACTATGGAGCCCATGGACCAGTTAGATGATGAAGGGGA
CTTCAGAGAAGCTGGTTATAAAAAACCAGCAATTTACAAAGGAACGAGAGCAACCACCCAGATTTGCACAGCCT
GGCTCCTTTGAGTATGAATATGCCATGCGCTGGAAGGCACTCATTGAGATGGAGAAGCAGCAGCAGGACCAAGTG
GACCGCAACATCAAAGAGGCTCGTGAGAAGCCAGAGATGGAGATGGAGGCTGCACGCCATAAGCACCAGGTGCAA
CTAATGAGACAGAATTTGATGAGGCGCCAAGAAGAACTTCGGAGGATGGAAGAGCTGCACAACCAAGAGGTGCAA
AAACGAAAGCAACTGGAGCTCAGGCAGGAGGAAGAGCGCAGGCGCCCTGAAGAAGAGATGCGCGGGCAGCAAGAA
GAAATGATGCAGCCACAGCAGGAAGGATTCAAGGGAACCTTCCTTGATGTGAGAGAGCAGGAGATTTGGATGGGT
CAGATGGCTATGGGAGGTGCTATGGGCATAAACAGCAGAGGTGCCTTGACCCCTGCTCCTGTGCCAGCTGGTACC
CCAGCTCCTCCAGGACCTGCCACTATGATGCCGATGGAACCTTTGGGATTGACCCACCAACAACCTGAACGCTTT
GGTCAGGCTGCTACAATGGAAGGAATTGGGGCAATTGGTGAAACTCCTCCTGCATTCAACCATGCAGCTCCTGGA
GCTGAATTTGCTCCAAACAAACGTCGCCGATACTAATAAGTTGCAGTGTCTAGTTTCTCAAACCCCTTAAAGAA
GGACCCCTTTTGGACCAGCCAGAATTCTACCCCTGGAAAAGTGTTAGGGATTCTTCCAATAGTTAGATCTACCCCT
GCCTGTACTACTCTAGGGAGTATGCTGGAGGCAGAGGACAAGGGAGGGGTGGTATTAAACAAGTCAATTCTATGT
AGTATATTATTTAATCAGTTCTGTGTGGTGCAATTCCTGAAGTCTCAAATGTGATTGTTGAGGGCCTGGGGAAACC
ATGGCAAAGTAGATCCAGTTAGAGCCCATTAACTTTGATCATTCTGTTTTTTTTTGGTTTGTGTTGTTTTTTTTT
TTTTTTTTTTTTTGTCCATCTTGTTCATTGCTTGCCCTGCCCCGAGATGGAGTCTTACTCTGTGCCCCAGGCT
GGAGTGTAGTGGCACGATCTCGGCTCACTGCAATCTCTGCCTCTCGGGTTCAAGCTTGTCCAGGCTGATCTTGAA
CTCCTGACCTCGTGATCCCCTGCCTCAGCCTCCCAAAATGTGGGATTACAGGGGTGAGCCACCGTGCCCAACCT
CACTTGCTTTCTTATCCTTACACTCCCCCAGTCCCAGAGAACTGCCACATACACCACAAAACCAAACATCCCC
CAATGACCTTAGCCGCATTGCTCCATTCACTCCAGGTGAGAATTCAGGTAAACGTCCACAAAGGTCACAGGCAA
CGTACATACGGTTCTATTATATCCCATATATTACCCCTTCATGTCTTAAAGAAGACATTTTCTCTTAGAGATTTT
CATTTTAGTATATCTTTAAAAAAAATCTTGTGTTAACTTGCCCTCCATCTTTTTCTTGGGTGAGGACACCCAGGA
ATGACCCCTTTTGTGCTATGATACTGCTGTTACAGCTTTTCTTGATAGGCCTAGTACAATCTTGGGAACAGGGT
TACTGTATACTGAAGGTCTGACAGTAGCTCTTAGACTCGCCTATCTTAGGTAGTCATGCTGTGCCCTTTTTTTTCC
ATTGGTGTATTGATTTGATTTGTCTCTGATATATTGGAGTTTTTCTGAGAACTGGAGCAGTAATGCAGCATCG
ACCTATTAAATACATTTTAAGCCTTT

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FIGURE 4559

MPLCGKQLRVRFSCHSASLTVRNLPQYVSNEVLEEAFSVFGQVERAVVI VDDRGRPSGKGIVEFSGKPAAGKALD
RRSEGSFLLTTFFRPVTMEPMDQLDDEGGLPEKLVIKNQGFHKEREQPPRFAQPGSFYEYAMRWKALIEMEKQQ
QDQVDRNIKEAREKPEMEMEAAARHKKHVMLMRQNLMRQEELRRMEELHNOEVQKRKQLELRQEEERRRPEEEMR
RQQEEMMQPQEGFKGTFFDVREQEIWMGQMAMGGAMGINSRGALTPAPVPAGTPAPPGPATMMPDGTGLGLTPPT
TERFGQAATMEGIGAIGETPPAFNHAAPGAEFAPNKRRRY

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FIGURE 4560

GCAGTGAAGGCTCCTTCCTGCTAACCACATTTCTCGTCCTGTGACTATGGAGCCCATGGACCAGTTAGATGATG
AAGGGGGACTTCCAGAGAAGCTGGTTATAAAAAACCAGCAATTTACAAGGAACGAGAGCAACCACCCAGATTTG
CACAGCCTGGCTCCTTTGAGTATGAATATGCCATGCGCTGGAAGGCACTCATTGAGATGGAGAAGCAGCAGCAGG
ACCAAGTGGACCGCAACATCAAAGAGGCTCGTGAGAAGCCAGAGATGGAGATGGAGGCTGCACGCCATAAGCACC
AGGTCATGCTAATGAGACAGAATTTGATGAGGCGCCAAGAAGAAGCTTCGGAGGATGGAAGAGCTGCACAACCAAG
AGGTGCAAAAACGAAAGCAATCTCTGCCTCTCGGGTTCAAGCTTGTCCAGGCTGATCTTGAACCTCTGACCTCGT
GATCCCCTGCCTCAGCCTCCCAAAATGCTGGGATTACAGGGGTGAGCCACCGTGCCCAACCTCACTTGCTTTCTT
ATCCTTACACTCCCCCAGTCCCAGAGAACTGCCACATACACCACAAAACCAACATCCCCCAATGACCTTAGC
CGCATTGCTCCATTCACTCCCAGGTGAGAATTGAGGTAAACGTCCACAAAGGTCACAGGCAACGTACATACGGTT
CTATTATATCCCATATATTACCCCTTCATGTCCTA

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FIGURE 4561

CTTTTCTCGGGACGGGAGAGGCCGTGTAGCGTCGCCGTTACTCCGAGGAGAGACCAGTCGGTAGAGGAAGAGCGC
AGGCGCCCTGAAGAAGAGATGCGGCGGCAGCAAGAAGAAATGATGCAGCCACAGCAGGAAGGATTCAAGGGAACC
TTCCCTGATGTGAGAGAGCAGGAGATTGGATGGGTCAGATGGCTATGGGAGGTGCTATGGGCATAAACAGCAGA
GGTGCCCTTGACCCCTGCTCCTGTGCCAGCTGGTACCCAGCTCCTCCAGGACCTGCCACTATGATGCCGGATGGA
ACTTTGGGATTGACCCACCAACAACCTGAACGCTTTGGTCAGGCTGCTACAATGGAAGGAATTGGGGCAATTGGT
GAAACTCCTCCTGCATTCAACCATGCAGCTCCTGGAGCTGAATTTGCTCCAAACAAACGTCGCCGATACTAATAA
GTTGCAGTGTCTAGTTTCTCAAAACCCTTAAAAGAAGGACCCTTTTGGACCAGCCAGAATTCTACCCTGGAAAA
GTGTTAGGGATTCCCTTCCAATAGTTAGATCTACCCTGCCTGTACTACTCTAGGGAGTATGCTGGAGGCAGAGGAC
AAGGGAGGGGTGGTATTAAACAAGTCAATTCTATGTAGTA

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FIGURE 4562

AGTGGTGTCCGCAAAGCCCAAGGTGCATAATCGTCAACCTCGAATTAACCTCTACGTGGAGGTGGCGGTGGATGG
ACTCCCCAGTGAGACCAAGAAGACTGGGAAGCGCATTGGGAGCTCTGAGCTTCTCTGGAATGAGATCATCATTTT
GAATGTACGGCACAGAGTCATTTAGATTTAAAGGTCTGGAGCTGCCATACCTTGAGAAATGAACTGCTAGGCAC
CGCATCTGTCAACCTCTCCAACGTCTTGAAGAACATGGGGGCAAAATGGAGAACATGCAGCTGACCCCTGAACCT
GCAGACGGAGAACAAGGCAGCGTTGTCTCAGGCGGAGAGCTGACAATTTTCTGGACGGGCAACTGTTGATCT
GGGAAATGTGCCTAATGGCAGTGCCCTGACAGATGGATCACAGCTGCCTTCGAGAGACTCCAGTGGAACAGCAGT
AGCTCCAGAGAACC GGACCCAGCAGCCCCCAGCACAACTGCTTTGGTGGAAAGATCCCGGACGCACAGACATTCGGG
TGCTTCAGCCAGAACAACCCAGCAACCGGCGAGCAAGCCCCGGTGCTCGGAGCCGGCACCGCCAGCCCGTCAA
GAACTCAGGCCACAGTGGCTTGCCCAATGGCACAGTGAATGATGAACCCACAACAGCCACTGATCCCGAAGAACC
TTCCGTTGTTGGTGTGACGTCCCCACCTGCTGCACCTTGAGTGTGACCCCGAATCCCAACACGACTTCTCTCCC
TGCCCCAGCCACACCGGCTGAAGGAGAGGAACCCAGCACTTCGGGTACACAGCAGCTCCAGCGGCTGCCAGGC
CCCCGACGCTCTGCCTGCTGGATGGGAACAGCGAGAGCTGCCCAACGGACGTGTCTATTATGTTGACCACAATAC
CAAGACCACCACTGGGAGCGGCCCTTCTCCAGGCTGGGAAAAACGCACAGATCCCCGAGGCAGGTTTTACTA
TGTGGATCACAATACTCGGACCACCACTGGCAGCGTCCGACCGCGGAGTACGTGCGCAACTATGAGCAGTGGCA
GTCGCGAGCGGAATCAGCTCCAGGGGGCCATGCAGCACTTCAGCCAAAGATTCTCTACCAGTCTTCGAGTGCTTC
GACTGACCATGATCCCTTGGGCCCCCTCCCTCCTGGCTGGGAGAAGAGACAGGACAATGGACGGGTGTATTACGT
GAACCATAACACTCGCACGACCCAGTGGGAGGATCCCCGACCCAGGGGATGATCCAGGAACCAGCTCTGCCCCC
AGGATGGGAGATGAAATAACACGAGGGGGTGCATACCTTTGTGGACCACAATACCCGCACCACCACCTTTAA
GGATCCTCGCCCGGGGTTTGTAGTCGGGGACGAAGCAAGGTTCCCTTGGTGCTTATGACCGCAGTTTTCGGTGGAA
GTATCACCAGTTCCGTTTCTCTGCCATTCAAATGCCCTACCTAGCCACGTGAAGATCAGCGTTTCCAGGCAGAC
GCTTTTGAAGATTCTTCCAACAGATCATGAACATGAAACCTATGACCTGCGCCCGCGGCTCTACATCATCAT
GCGTGGCGAGGAGGGCTGGACTATGGGGGCATCGCCAGAGATGGTTTTTCTCTGTCTCATGAGGTGCTCAA
CCCTATGTATTGTTTATTGAAATATGCCGGAAGAACAATTACTGCCTGCAGATCAACCCCGCCTCCTCCATCAA
CCCGGACCACCTACCTACTTTGCTTTATAGGCAGATTTCATCGCCATGGCGCTGTACCATGGAAAGTTTCATCGA
CACGGGCTTCACCTCCCTTTCTACAAGCGGATGCTCAATAAGAGACCAACCCTGAAAGACCTGGAGTCCATTGA
CCCTGAGTTCTACAACCTCCATTGTCTGGATCAAAGAGAACAACCTGGAAGAATGTGGCCTGGAGCTGTACTTCAT
CCAGGACATGGAGATACTGGGCAAGGTGACGACCCACGAGCTGAAGGAGGGCGGCGAGAGCATCCGGGTCACAGA
GGAGAACAAGGAAGAGTACATCATGCTGCTGACTGACTGGCGTTTACCCGAGGCGTGGAAAGAGCAGACCAAAGC
CTTCTGATGGCTTCAACGAGGTGGCCCCGCTGGAGTGGCTGCGCTACTTTGACGAGAAAGAGCTGGAGCTGAT
GCTGTGCGGCATGCAGGAGATAGACATGAGCGACTGGCAGAAGAGCACCATCTACCGGCACTACACCAAGAACAG
CAAGCAGATCCAGTGGTTCTGGCAGGTGGTGAAGGAGATGGACAACGAGAAGAGGATCCGGCTGCTGCAGTTTGT
CACCGGTACCTGCCGCTGCCGTCGGGGGATTTGCCGAACCTATCGGTAGCAACGGACCACAGAAGTTTGCAT
TGACAAAGTTGGCAAGGAAACCTGGCTGCCAGAAGCCACACCTGCTTCAACCGTCTGGATCTTCCACCTACAA
GAGCTACGAACAGCTGAGAGAGAAGCTGCTGTATGCCATTGAGGAGACCGAGGGCTTTGGACAGGAGTAACCGAG
GCCGCCCCCTCCACGCCCCCAGCGCACATGTAGTCTGAGTCCCTGCCCTGAGAGGCCACTGGCCCCGCAGC
CCTTGGGAGGCCCGCTGGATGTGGCCCTGTGTGGGACCACACTGTCATCTCGCTGCTGGCAGAAAAGCCTGATC
CCAGGAGGCCCTGCAGTTCCCCCGACCCGCGGATGGCAGTCTGGAATAAAGCCCCCTAGTTGCCCTTGGCCCCAC
CTTTGCAAAGTTCCAGAGGGCTGACCCTCTCTGCAAACTCTCCCTGTCTCTAGACCCACCCCTGGGTGTATG
TGAGTGTGCAAGGGAAGGTGTTGCATCCCCAGGGGCTGCCGAGAGGCCGGAGACCTCCTGGACTAGTTGGCGA
GGAGACTGGCCACTGGGGGTGGCTGTTGCGGACTGAGAGCGCCAAGGGTCTTTGCCAGCAAAGGAGGTTCTGCCT
GTAATTGAGCCTCTCTGATGATGGAGATGAAGTGAAGTCTGAGGGAGCGGGCCCTGGGGCGAGGCCATCTCTGC
CTGCCCTCCCTAGCAGGCGCCAGCGGTGGAGGCTGAGTCGAGGACACATGCCGGCCAGTTAATTCATTCTCAGCC
AATGAAGGTTTGTCTAAGCTGCCTGGGTATCCACGGGACAAAAACAGCAAACTCCCTCAGACTTTGTCCATGTAT
AAACTTGAAGTGGTTGTGTGTAGGGTTGCAGTTTTTTGTTACGCTGCTGTCACTTTCTGTC

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FIGURE 4563

MASASSRAGVALPFEKSQLTLKVVSAPKPKVHNRQPRINSYVEVAVDGLPSETKKTGKRIGSSELLWNEIIILNV
TAQSHLDLKVWSCHTLRNELLGTASVNLNVLKNNGGKMENMQLTLNLQ TENKGSVVSGGELTIFLDGPTVDLGN
VPNGSALTDGSQLPSRDSSGTAVAPENRHQPPSTNCFGGRSRTHRHSGASARTTPATGEQSPGARSRRHQPVKNS
GHSGLANGTVNDEPTTATDPEEPSVVGVTSPPAAPLSVTPNPNTTSLPAPATPAEGEEPSTSGTQQLPAAAQAPD
ALPAGWEQRELPNGRVYYVDHNTKTTTWERPLPPGWEKRTDPRGRFYVDHNTTRTTWQRPTAEYVRNYEQWQSQ
RNQLQGAMQHFSQRFLYQSSSASTDHDPLGPLPPGWEKRQDNGRVYYVNHNTTRTTQWEDPRTQGMIEPALPPGW
EMKYTSEGVRYFVDHNTTRTTTFKDPRPGFESGTKQSGPAYDRSFRWKYHQFRFLCHSNALPSHVKISVSRQTLF
EDSFQQIMNMKPYDLRRRLYIIMRGEGLDYGGIAREWFFLLSHEVLNPMYCLFEYAGKNNYCLQINPASSINPD
HLT YFRFIGRFIAMALYHGKFIDTGFTLPFYKRMLNKRPTLKDLESIDPEFYNSIVWIKENNLEECGLELYFIQD
MEILGKVTTHELKEGGESIRVTEENKEEYIMLLTDWRFTRGVEEQTKAFLDGFNEVAPLEWLRYFDEKELELMC
GMQEIDMSDWQKSTIYRHYTKNSKQIQWFWQVKEMDNEKRIRLLQFVTGTCRLPVGGAELIGSNGPQKFCIDK
VGKETWLP RSHTCFNRLLDLPYKSYEQLREKLLYAIEETEGFGQE

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FIGURE 4564

GGTACAGCTGCGCGTCTGCGGGAATAGGTGCAGCGGGCCCTTGGCGGGGGACTCTGAGGGAGGAGCTGGGGACGG
CGACCCTAGGAGAGTTCTTTGGGGTGACTTTCAAGATGGACTCTACTCTAACAGCAAGTGAAATCCGGCAGCGAT
TTATAGATTTCTTCAAGAGGAACGAGCATACGTATGTTCACTCGTCTGCCACCATCCCATTGGATGACCCCACTT
TGCTCTTTGCCAATGCAGGCATGAACCAGTTTAAACCCATTTTCCTGAACACAATTGACCCATCTCACCCCATGG
CAAAGCTGAGCAGAGCTGCCAATACCCAGAAGTGCATCCGGGCTGGGGGCAAACAAAATGACCTGGACGATGTGG
GCAAGGATGTCTATCATCACACCTTCTTCGAGATGTGGGCTCTTGGTCTTTTGGAGATTACTTTAAGGAATTGG
CATGTAAGATGGCTCTGGAACCTCTCACCCAGAGTTTGGCATTCCCATTGAAAGACTTTATGTTACTTACTTTG
GCGGGGATGAAGCAGCTGGCTTAGAAGCAGATCTGGAATGCAACAGATCTGGCAAAATTTGGGGCTGGATGACA
CCAAAATCCTCCCAGGCAACATGAAGGATAACTTCTGGGAGATGGGTGACACGGGCCCCCTGTGGTCTTTCAGTG
AGATCCACTACGACCGGATTGGTGGTCTGGGACGCCGCACATCTTGTCACCCAGGACGACCCTAATGTGCTGGAGA
TCTGGAACCTTGTGTTTATCCAGTATAACAGGGAAGCTGTATGGCATTCTGAAACCTCTTCCCAAGAAAAGCATTG
ACACAGGGATGGGCCTGGAACGACTGGTATCTGTGCTGCAGAAATAGATGTCCAATATGACACTGACCTTTTGG
TCCCTTACTTTGAAGCCATTGAGAAGGGCACAGGTGCCGACCATACTGGGAAAGTTGGTGCTGAGGATGCCG
ATGGGATTGACATGGCCTACCGGGTGTGGCTGACCATGCTCGGACCATCACTGTGGCACTGGCTGATGGTGGCC
GGCCTGACAACACAGGGCGTGGATATGTGTTGAGACGGATTCTCCGCCGAGCTGTCCGATACGCCCATGAAAAGC
TCAATGCCAGCAGGGGCTTCTTTGCTACGTTAGTGGATGTTGTCGTCCAGTCCCTGGGAGATGCATTTCTTGAGC
TGAAGAAGGACCCAGACATGGTGAAGGACATCATTAAATGAAGAAGAGGTGCAGTTTCTCAAGACTCTCAGCAGAG
GGCGTCGCATCTGGACAGGAAAATTGAGAGCTGGGAGACAGCAAGACCATTCCCGGAGACACTGCTTGGCTCC
TCTATGACACCTATGGGTTTCCAGTGGATCTGACTGGACTGATTGCTGAAGAGAAGGGCTGGTGGTAGACATGG
ATGGCTTTGAAGAGGAGGAAACTGGCCGACTGAAATCACAGGGCAAGGGAGCTGGTGGGAAGACCTCATTA
TGCTGGACATTTACGCTATCGAAGAGCTCCGGGCACGGGGTCTGGAGGTCACAGATGATTCCCCAAAGTACAATT
ACCATTTGGACTCCAGTGGTAGCTATGTATTTGAGAACACAGTGGCTACGGTGATGGCTCTGCGCAGGGAGAAAG
TGTTCTGTGGAAGAGGTGTCCACAGGCCAGGAGTGTGGAGTGGTGTGACAAAGACCTGTTTCTATGCTGAGCAAG
GAGGCCAGATCTATGACGAAGGCTACCTGGTGAAGGTGGATGACAGCAGTGAAGATAAAACAGAGTTTACAGTGA
AGAATGCTCAGGTCCGAGGAGGGTATGTGCTACACATTGGAACCATCTACGGTGACCTGAAAGTGGGGGATCAGG
TCTGGCTGTTTTATTGATGAGCCCCGACGAAGACCCATCATGAGCAACCACACAGCTACGCACATTCTGAACTTCG
CCCTGCGCTCAGTGCTTGGGGAAGCTGACCAGAAAGGCTCATTGGTTGCTCCTGACCGCCTCAGATTTGACTTTA
CTGCCAAGGGAGCCATGTCCACCCAACAGATCAAGAAGGCTGAAGAGATTGCTAATGAGATGATTGAGGCAGCCA
AGGCCGTCTATACCCAGGATTGCCCCCTGGCAGCAGCGAAAGCCATCCAGGGCCTACGGGCTGTGTTTGATGAGA
CCTATCCTGACCCTGTGCGAGTCTGCTCCATTGGGGTCCCGGTGTCCGAGTTGTGGATGACCCCTCTGGGCCTG
CTGGCTCCCTGACTTCTGTTGAGTTCTGTGGGGGAACGCACCTGCGGAACCTCGAGTCATGCAGGAGCTTTTGTGA
TCGTGACGGAAGAAGCCATTGCCAAGGGTATCCGGAGGATTGTGGCTGTACAGGTGCCGAGGCCAGAAAGGCC
TCAGGAAGCAGAGAGCTTGAAGAAATGTCTCTGTGTCATGGAAGCCAAGTGAAGGCTCAGACTGCTCCAAACA
AGGATGTGCAGAGGGAGATCGCTGACCTTGGAGAGGCCCTGGCCACTGCAGTCATCCCCAGTGGCAGAAAGGATG
AATTGCGGGAGACTCTCAAATCCCTAAAGAAGGTGATGGATGACTTGGACCGAGCCAGCAAAGCCGATGTCCAGA
AACGAGTGTTAGAGAAGACGAAGCAGTTTCATCGACAGCAACCCCAACCAGCCTCTTGTATCCTGGAGATGGAGA
GCGGCGCCTCAGCCAAGGCCCTGAATGAAGCCTTGAAGCTCTTCAAGATGCACTCCCTCAGACTTCTGCCATGC
TCTTACGGTGGAACAATGAGGCTGGCAAGATCACGTGCCTGTGTCAAGTCCCCCAGAATGCAGCCAATCGGGGCT
TAAAGCCAGCGAGTGGGTGCAGCAGGTGTGAGGCTTGTGGACGGTAAAGGTGGTGGCAAGGATGTGTCTGCAC
AGGCCACAGGCAAGAACGTTGGCTGCCTGCAGGAGGCGCTGCAGCTGGCCACTTCTTCGCCAGCTGCGCCTCG
GGGATGTAAAGAACTGAGTGGGGAAGGAGGAGGCTCCCACTGGATCCATCCGTCCAGCCAAGAGCTCTTCATCTG
CTACAAGAACATTTGAATCTTGGGACCTTTAAAGAGCCCCCTCTAACCAGCAGTAAGTGAACACACTTGGGAG
CAGTCCTATGTCTCAGTGCCCTTAAATTTCTGCCCTGAGCCCTCCACGTGAGTGCATCGGTCTAGAACCCTA
ACCCCGCATTGCTGTTGATCGTCACGCTCGCATCTATAGATAACGGCTCTCCAGACCTGAGCTTTCGCGCTCAGC
AAGTAGGAATCGTTTTTGTCTGCAGAGAATAAAAGGACCACGTGC

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FIGURE 4565

MDSTLTASEIRQRFIDFFKRNEHTYVHSSATIPLDDPTLLFANAGMNQFKPIFLNTIDPSHPMAKLSRAANTQKC
IRAGGKQNDLDDVGKDVYHHTFFEMLGSWSF GDYFKELACKMALELLTQEFGIPIERLYVTYF GGDEAAGLEADL
ECKQIWQNLGLDDTKILPGNMKDNFWEMGDTGPCGPCSEIHYDRIGGRDAAHLVNQDDPNVLEIWNLVFIQYNRE
ADGILKPLPKSIDTGMGLERLVSVLQNKMSNYDTDLFVPYFEAIQKGTGARPYTGKVGAEADADGIDMAYRVLAD
HARTITVALADGGRPDNTGRGYVLRRI LRRAVRYAHEKLNASRGFFATLVVVVQSLGDAFPPELKKDPDMVKDII
NEEEVQFLKTL SRGRRILDRKIQSLGDSKTIPGDTAWLLYDTYGFPVDLTGLIAEEKGLVVDMDGFEEERKLAQL
KSQKGAGGEDLIMLDIYAIEELRARGLEVTD DSPKYNHLDSSGSYVFENTVATVMALRREKMFVEEVSTGQEC
GVVLDKTCFYAEQGGQIYDEGYLVKVDDSSSEDKTEFTVKNAQVRGGYVLHIGTIYGD LKVG DQVWLFIDEPRRRP
IMSNHTATHILNFALRSVLGEADQKGS LVAPDRLRFDF TAKGAMSTQQIKKAE EIANEMIEAAKAVYTQDCPLAA
AKAIQGLRAVFDETY PDPVRVVSIGVPVSELDDPSG PAGSLTSVEFCGGTHLRNSSHAGAFVIVTEEAIAKGIR
RIVAVTGAEAQKALRKAESLKKCLSVMEAKVKAQTAPNKDVQREIADLGEALATAVIPQWQKDELRETLKSLKKV
MDDLDRASKADVQKRVLEKTKQFIDSNPNQPLVILEMESGASAKALNEALKLFKMHSPTSAMLFTVDNEAGKIT
CLCQVPQNAANRGLKASEWVQQVSGLMDGKGGGKDVSAQATGKNVGC LQEALQLATSFAQLRLGDVKN

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FIGURE 4566

GTAGTGGGGCTGGAGCAGAGCCTGCCGCGAACCCCGGAGCCCACGATCCCTCGTGCCATCCCTCGAATCCACCA
GCACGAGCGTCCCACCCGCGCCTGGGACCAATGGCCACTGACTCATGGGCCCTGGCGGTGGACGAGCAGGAAGCTG
CGGCTGAGTCGTTGAGCAACTTGCATCTTAAGGAAGAGAAAATCAAACCAGATACCAATGGTGCTGTTGTCAAGA
CCAATGCCAATGCAGAGAAGACAGATGAAGAAGAGAAAGAGGACAGAGCTGCCCAGTCCCTTACTCAACAAGCTGA
TCAGAAGCAACCTTGTTGATAACACAAACCAAGTGGAAGTCCCTGCAGCGGGATCCAACTCCCCTCTGTACTCGG
TGAAGTCTTTTGAAGAGCTTCGGCTGAAACCACAGCTTCTCCAAGGAGTCTATGCCATGGGTTTCAATCGTCCAT
CCAAGATACAAGAGAACGCATTGCCACTGATGCTTGCTGAGCCCCACAGAACTTAATTGCCCAATCTCAGTCTG
GTACTGGTAAACAGCTGCCTTCGTGCTGGCCATGCTTAGCCAAGTAGAACCTGCAAAACAAATACCCCCAGTGTC
TATGTCTCTCCCAACGATAGAGCTCGCCCTCCAAACAGGAAAAGTGATTGAACAAATGGGCAAAATTTTACCCCTG
AACTGAAGCTAGCTTATGCTGTTGAGGCAATAAATTGGAAAGAGGGCCAGAAGATCAGTGAGCAGATTGTCAATTG
GCACCCCTGGGACTGTGCTGGACTGGTGCTCCAAGCTCAAGTTCATTGATCCCAAGAAAATCAAGGTGTTTGTTC
TGGATGAGGCTGATGTCATGATAGCCACTCAGGGCCACCAAGATCAGAGCATCCGCATCCAGAGGATGCTGCCCA
GGAAGTCCAGATGCTGCTTTTCTCCGCCACCTTTGAAGACTCTGTGTGGAAGTTTGCCAGAAAAGTGGTCCCAG
ACCCAAACGTTATCAAACCTGAAGCGTGAGGAAGAGACCCCTGGACACCATCAAGCAGTACTATGTCTGTGCAGCA
GCAGAGACGAGAAGTTCCAGGCCTTGTTGAACCTCTACGGGGCCATCACCATTGCTCAAGCCATGATCTTCTGCC
ATACTCGCAAAACAGCTAGTTGGCTGGCAGCAGAGCTCTCAAAGAAGGCCACCAGGTGGCTCTGCTGAGTGGGG
AGATGATGGTGGAACAGAGGGCTGCAGTGATTGAGCGCTTCCGAGAGGGCAAAGAGAAGGTTTTGGTGACCACCA
ACGTGTGTGCCCGCGGCATTGATGTTGAACAAGTGTCTGTCTCATCACTTTGATCTTCCCGTGGACAAGGACG
GGAATCCTGACAATGAGACCTACCTGCACCGGATCGGGCGCACGGGCCGCTTTGGCAAGAGGGGCCTGGCAGTGA
ACATGGTGACAGCAAGCACAGCATGAACATCCTGAACAGAATCCAGGAGCATTTTAATAAGAAGATAGAAAGAT
TGGACACAGATGATTTGGACGAGATTGAGAAAATAGCCAACTGAGAAGCTCCACCAGCCACTGATGCCAGCCCTG
GCACTGCCCCCTGCACAGGAGACAAGTGCGTTACAGGGCACAGGCCCGACATCACCCCAAGGACAACGGCACAAAGT
AGAGAGAAACTACCTACCTCACTTCAAATTATGTTTGGACTTGACAAAAATGTATGCAAATGATGGGGGATGGTA
GAAAAAAATTATTTACACAACCTTGGAAGATTAGGCATGAATACACAGAGATTACCTTTTGGAAAAAAAAAAAA
AAAAAA

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FIGURE 4567

MATDSWALAVDEQEAAAESLSNLHLKEEKIKPDTNGAVVKTNANAECTDEEEKEDRAAQSLNKLIRSNLVDNTN
QVEVLQRPNSPLYSVKSFEELRLKPQLLQGVYAMGFNRPSKIQENALPLMLAEPPQNLIQSQSGTGKTAAFVL
AMLSQVEPANKYPQCLCLSPITYELALQTGKVIEQMGKFYPELKLAYAVRGNKLERGQKISEQIVIGTPGTVLDWC
SKLKFIIDPKKIKVFLDEADVMIAATQGHQDQSIRIQRMLPRNCQMLLESATFEDSVWKFAQKVVPDPNVIKLKRE
EETLDTIKQYYVLCSSRDEKFQALCNLYGAITIAQAMIFCHTRKTASWLAAELSKEGHQVALLSGEMMVEQRAAV
IERFREGKEKVLVTTNVCARGIDVEQSVVINFDLPVDKDGNDNETYLHRIGRTGRFGKRGGLAVNMVDSKHSMN
ILNRIQEHFNKKIERLDTDDLDEIEKIAN

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FIGURE 4568

GTACTATCCTCCTTACTTTTGGGTGCGGGCCCTCCGGGAAGATGGCGGCCGTGCAGGCGGGCCGAGGTGAAAAGTGA
TGGCAGCGAGCCGAAACTGAGCAAGAATGAGCTGAAGAGACGCCTGAAAGCTGAGAAGAAAGTAGCAGAGAAGGA
GGCCAAACAGAAAGAGCTCAGTGAGAAACAGCTAAGCCAAGCCACTGCTGCTGCCACCAACCACACCACTGATAA
TGGTGTGGGTCTCTGAGGAAGAGAGCGTGGACCCAAATCAATACTACAAAATCCGCAGTCAAGCAATTCATCAGCT
GAAGGTCAATGGGGAAGACCCATACCCACACAAGTTCCATGTAGACATCTCACTCACTGACTTCATCCAAAAATA
TAGTCACCTGCAGCCTGGGGATCACCTGACTGACATCACCTTAAAGGTGGCAGGTAGGATCCATGCCAAAAGAGC
TTCTGGGGGAAAGCTCATCTTCTATGATCTTCGAGGAGAGGGGGTGAAGTTGCAAGTCATGGCCAATTCCAGAAA
TTATAAATCAGAAGAAGAATTTATTCATATTAATAACAACTGCGTCGGGGAGACATAATTGGAGTTTCAGGGGAA
TCCTGGTAAACCAAGAAGGTGAGCTGAGCATCATTCGGTATGAGATCACACTGCTGTCTCCCTGTTTGCATAT
GTTACCTCATCTTCACTTTGGGCTCAAAGACAAGGAAACAAGGTATCGCCAGAGATACTTGGACTTGATCCTGAA
TGACTTTGTGAGGCAGAAATTTATCATCCGCTCTAAGATCATCACATATATAAGAAGTTTCTTAGATGAGCTGGG
ATTCTAGAGATTGAAACTCCCATGATGAACATCATCCCAGGGGGAGCCGTGGCCAAGCCTTTCATCACTTATCA
CAACGAGCTGGACATGAACCTATATATGAGAATTGCTCCAGAACTCTATCATAAGATGCTTGTGGTTGGTGGCAT
CGACCGGGTTTATGAAATTGGACGCCAGTTCCGGAATGAGGGGATTGATTGACGCACAATCCTGAGTTCACCAC
CTGTGAGTTCTACATGGCCTATGCAGACTATCACGATCTCATGGAAATCACGGAGAAGATGGTTTCAGGGATGGT
GAAGCATATTACAGGCAGTTACAAGGTCACCTACCACCCAGATGGCCCAGAGGGCCAAGCCTACGATGTTGACTT
CACCCACCCCTTCCGGCGAATCAACATGGTAGAAGAGCTTGAGAAAGCCCTGGGGATGAAGCTGCCAGAAACGAA
CCTCTTTGAAACTGAAGAACTCGCAAAATCTTGATGATATCTGTGTGGCAAAAGCTGTTGAATGCCCTCCACC
TCGGACCACAGCCAGGCTCCTTGACAAGCTTGTTGGGGAGTTCTTGAAGTGACTTGATCAATCCTACATTCTAT
CTGTGATCACCCACAGATAATGAGCCCTTTGGCTAAATGGCACCCTCTAAAGAGGGTCTGACTGAGCGCTTTGA
GCTGTTTGTGATGAAGAAAGAGATATGCAATGCGTATACTGAGCTGAATGATCCCATGCGGCAGCGGCAGCTTTT
TGAAGAACAGGCCAAGGCCAAGGCTGCAGGTGATGATGAGGCCATGTTTATAGATGAAAACCTTCTGTACTGCCCT
GGAATATGGGCTGCCCCCACAGCTGGCTGGGGCATGGGCATTGATCGAGTCGCCATGTTTCTCACGGACTCCAA
CAACATCAAGGAAGTACTTCTGTTTCTGCCATGAAACCCGAAGACAAGAAGGAGAATGTAGCAACCACTGATAC
ACTGGAAGCACAAACAGTTGGCACTTCTGTCTAGAAAATAATAATTGCAAGTTGTATAACTCAGGCGTCTTTGCA
TTTCTGCGAAAGATCAAGGTCTGCAAGGGAATCTTGTGTGCTGCTTTCCATTTGACACCGCAGTTCTGTTTCAGC
CATCAGAAGAGAGACAAGGAATTAATAAATTTCTTTTAACTCCTGTTA

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FIGURE 4569

MAAVQAAEVKVDGSEPKLSKNELKRRLKAEKKVAEKEAKQKELSEKQLSQATAAATNHTTDNGVGPEEESVDPNQ
YYKIRSQAIIHQLKVNGEDPYPHKFHVDISLTDFIQKYSHLQPGDHLTDITLKVAGRIHAKRASGGKLIFYDLRGE
GVKLQVMANSRNYKSEEEFIHINNKLRRGDIIGVQGNPGKTKKGELSIIPYEITLLSPCLHMLPHLHFLGLKDKET
RYRQRYLDLILNDFVRQKFIIRSKIITYIRSFLDELGFLEIETPMNIIIPGGAVAKPFIITYHNELDMNLYMRIAP
ELYHKMLVVGIDRVYEIGRQFRNEGIDLTHNPEFTTCEFYMAYADYHDLMEITEKMVSGMVKHITGSYKVITYHP
DGPEGQAYDVDFTPPFRRINMVEELEKALGMKLPETNLFETEETRKILDDICVAKAVECPPPRTTARLLDKLVGE
FLEVTCINPTFICDHPQIMSPLAKWHRSEGLTERFELFVMKKEICNAYTELNDPMRQRQLFEEQAKAKAAGDDE
AMFIDENFCTALEYGLPPTAGWGMGIDRVAMFLTDSNNIKEVLLFPAMKPEDKKENVATTDLTLESTTVGTSV

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FIGURE 4570

AAGATGGCGGACCTTGATTTCGCCTCCGAAGCTGTCAGGGGTGCAGCAGCCGTCTGAGGGGGTGGGAGGTGGCCGC
TGCTCCGAAATCTCCGCTGAGCTCATTCCGCTCCCTGACAGAGCTGCAGGAGCTGGAGGCTGTATACGAACGGCTC
TGCGGCGAGGAGAAAAGTGGTGGAGAGAGAGCTGGATGCTCTTTTGGAAACAGCAAAACACCATTTGAAAGTAAGATG
GTCACCTCTCCACCGAATGGGTCTTAATCTGCAGCTGATTGAGGGAGATGCAAGCAGCTGGCTGGAATGATCACC
TTTACCTGCAACCTGGCTGAGAATGTGTCCAGCAAAGTTCGTACAGCTTGACCTGGCCAAGAACC GGCTCTATCAG
GCCATTGAGAGAGCTGATGACATCTTGGACCTGAAGTTCTGCATGGATGGAGTTCAGACTGCTTTGAGGAGTGAA
GATTATGAGCAGGCTGCAGCACATACTCATCGCTACTTGTGCCTGGACAAGTGGGTGCTGAGCTCAGCCGACAG
GGCAAAGAGGGGAGCATGATTGATGCCAACCTGAAATTGCTGCAGGAAGCTGAGCAACGTCTCAAAGCCATTGTG
GCAGAGAAGTTTGCCATTGCCACCAAGGAAGGTGATCTGCCCCAGGTGGAGCGCTTCTTCAAGATCTTCCCACTG
CTGGGTTTGCATGAGGAGGGATTAAGAAAGTTCTCGGAGTACCTTTGCAAGCAGGTGGCCAGTAAAGCTGAGGAG
AATCTGCTCATGGTGTCTGGGACAGACATGAGTGATCGGAGAGCTGCAGTCATCTTTGCAGATACACTTACTCTT
CTGTTTGAAGGATTGCCCGCATTTGTGGAGACCCACCAGCCAATAGTGGAGACCTATTATGGGCCAGGGAGACTC
TATACCCTGATCAAAATATCTGCAGGTGGAATGTGACAGACAGGTGGAGAAGGTGGTAGACAAGTTCATCAAGCAA
AGGGACTACCACAGCAGTTCCGGCATGTTTCAAGCAACCTGATGAGAAATTCTACAACAGAAAAATCGAACCA
AGAGAACTGGACCCCATCTGACTGAGGTCAACCTGATGAATGCCCCGAGTGAGCTATACTTACGCTTCTCAAG
AAGAGGATTAGCTCTGATTTTGGAGTGGGAGACTCCATGGCCTCAGAGGAAGTAAAGCAAGAGCACCAGAAGTGT
CTGGACAACTCCTCAATAACTGCCTTTTGGAGCTGTACCATGCAGGAGCTAATTGGCTTATATGTTACCATGGAG
GAGTACTTCATGAGGGAGACTGTCAATAAGGCTGTGGCTCTGGACACCTATGAGAAGGGCCAGCTGACATCCAGC
ATGGTGGATGATGTCTTCTACATTGTTAAGAAGTGCATTGGCGGGCTCTGTCCAGCTCCAGCATTGACTGTCTC
TGTGCCATGATCAACCTCGCCACCACAGAGCTGGAGTCTGACTTCAGGGATGTTCTGTGTAATAAGCTGCGGATG
GGCTTTCTGCCACCACCTTCCAGGACATCCAGCGCGGGGTGACAAGTGCCGTGAACATCATGCACAGCAGCCTC
CAGCAAGGCAAATTTGACACAAAAGGCATCGAGAGTACTGACGAGGCGAAGATGTCTTCTGCTGACTCTGAAC
AACGTGGAAGTCTGCAGTGAAAAATCTCCACTCTGAAGAAGACACTGGAGAGTGAAGTGCACCAAGCTCTTCAGC
CAGGGCATTGGAGGGGAGCAGGCCCAGGCCAAGTTTGACAGCTGCCCTTCTGACTTGGCCGCCGTGTCCAACAAA
TTCCGAGACCTCTTGAGGAAGGGCTGACGGAGCTCAACAGCACAGCCATCAAGCCACAGGTGCAGCCTTGGATC
AACAGCTTTTTCTCCGTCTCCCAACATCGAGGAGGAAGAATTCAATGACTATGAGGCCAACGACCTTGGGTA
CAACAGTTTATCTTAACCTGGAGCAGCAAATGGCAGAGTTCAAGGCCAGCCTGTCCCGGTCATCTACGACAGC
CTAACCGGCCTCATGACTAGCCTTGTGCGCTCGAGTTGGAGAAAGTGGTGCTGAAATCCACCTTTAACCGGCTG
GGTGGTCTGCAGTTTGACAAGGAGCTGAGGTGCTCATTTGCCTACCTTACCACGGTGACCACCTGGACCATCCGA
GACAAGTTTGCCCGGCTCTCCAGATGGCCACCATCTCAATCTGGAGCGGGTGACCGAGATCCTCGATTACTGG
GGACCCAATTCCGGCCCATTTGACGTGGCGCCTCACCCCTGCTGAAGTGCGCCAGGTGCTGGCCCTGCGGATAGAC
TTCCGCAAGTGAAGATATCAAGAGGCTGCGCCTGTAGCTGCCTGGATGAGCACACCTGGCTCATCACACTTGCAGG
CCTGTTCCCTAAGGGGCCCCAGCCAAGGAGCTGAGCGAGGCTGTCTGGCTTGGGGGAGATCTGACAGCCAGACC
TTTCTACGGCTGGCAGCAGAGAAACAAAGTCTGGACCCACTCCATGCTCTGCCCTCAGACCTGGCCAGGTGATGC
TCTGGGGGAGCATCTCCCCACCGAGAGAAGCGGGCTCCTAATGAGGTGGGAAAGCCACGGCAGGCAGCGAGCAG
CCCAGGCCAGCTTTCTGCATGGATGGTCAGTCTCTTGGCCCTCAAACACTACAGCAAACAAGTACCCCTGCCAGT
CCTAGACAACCTTGGGTACATCTGGGGACCTAGCAGTTAGGCTTGACTTTGAGGAGAGGCTGTGATGTTTATGATC
CCTGAATAAAGCTACTCCTTGGAGAGATGCCAGTGTGCTGTTACCAGGGAGGGCCAGATGCTATGGGGC

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FIGURE 4572

MCEGPSRISGPIPPDPTLCPDNYRRPTSAQGRLEGNAKLDLLTSDRALDTTAPRGPCIGPGAGEILERGQRGVG
DVLLQLEGISLGPGASLKRKDPKDHEKENLRRIREIQKRFRQERSREQQPRPLKALWRSPPKYDKVESRVKAQL
QEPGPASGTESAHLRAHSRCGPGLPPPHVSSPQPTPPGPEAKEPGLGVDFIRHNARAARKRAPRRHSCSLQVLAQ
VLEQQRQAQEHYNATQKGVPHYLLERRDLWRREAEARKQSQPDAMPFGHTRMPENQRLETTLTKLLQSQSLLR
ELVLLPAGADSLRAQSHRAELDRKLVQVEEAIKIFSRPKVFVKMDD

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[illegible]

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FIGURE 4574

MKMLPGVDVFGTGSSARVLVPLLRAEGFTVEALWGKTEEEAKQLAEEMNIAFYTSRTDDILLHQDVLDLVCISIPP
PLTRQISVKALGIGKNVCEKAATSVDAFRMVTASRYYPQLMSLVGNVLRFLPAFVRMKQLISEHYVGAVMICDA
RIYSGSLLSPSYGWICDELMGGGGLHTMGTYIVDLLTHLTGRRAEKVHGLLKTFVRQNAAIRGIRHVTSDDFCFF
QMLMGGGVCSTVTLNFMPGAFAFVHEVMVVGSAAGRLVARGADLYGQKNSATQEELLLRDSLAVGAGLPEQGPQDVP
LLYLKGMVYMQALRQSFQGGQDRRTWDRTVPVSMASFEDGLYMQSVVDAIKRSSRSGEWEAVEVLTEEPDTNQNL
LCEALQRNNL

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FIGURE 4575

GGAAGGGACAGTCGGCCGCAGACCGCGCTGGGTTGCCGCTGCCGCTGCCGCCATCGTGCCAGCCCCTCGGGTCTC
CGTGAGGCCGGGTGACGCTCCAGAAATGGGAGACAAGCCAATTTGGGAGCAGATTGGATCCAGCTTCATTCAACAT
TACTACCAGTTATTTGATAATGATAGAACCCAACTAGGCGCAATTTACATTGACGCGTCATGCCTTACGTGGGAA
GGACAACAGTTCCAGGGGAAAGCTGCCATTGTGGAGAAGTTGTCTAGCCTTCCGTTCCAGAAAATTCAGCACAGC
ATCACCGCGCAGGACCATCAGCCCACTCCAGATAGCTGCATCATCAGCATGGTTGTGGGCCAGCTTAAGGCGGAT
GAAGACCCCATCATGGGGTTCCACCAGATGTTCTATTAAAGAACATCAACGATGCTTGGGTTTGCACCAATGAC
ATGTTTCAGGCTCGCCCTGCACAACTTTGGCTGACCTCCTCTCAGCTAGGCACTCACGCTGTTTCTCTCCTCCCTCC
TCTTCCCAATACTATTCCCACTCCTCCAGATGCTCCAAATATCATGCACAAATGAGCAGGGCCGCGGTGGGAGTG
GGCGCAGTGCGCTGCTGCCACTGAGGTGTTGTGCATGATGTTTGGATGCTAGACTAGTTGCATCTGACGGGAGAA
GTTTGTGTTGTACCAGCGCATGCCTTGGAAAGACTTAAGTAATGCAAAAGGTTGTCTTTTTTTTTTTTTTTTTTT
TTTTAATCTACTGACAAGTTGCTCTAGTAACCCAAAGAAGTGAAGGAGAAAGCAGCTGCCTCACCGCCCAGACAT
TGATTTGTTTCAGATGTTTCAATGCCTCATGATACAATAAAACCACAAAAATTTTCTTAACAAAAA

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FIGURE 4576

MGDKPIWEQIGSSFIQHYYQLFDNDRTQLGAIYIDASCLTWEGQQFQGKAAIVEKLSSLFFQKIQHSITAQDHQP
TPDSCIISMVVGQLKADEDPIMGFHMFLKNINDAWVCTNDMFRALAHNFG

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FIGURE 4577

ATTGCCCGGAGATGGCCGGCAGAGCCGCCGAGACGCCGAAGAGCCCGCCGCCCGCGCGAGGTGTAGACGGGGGCAC
TGCCCTTCAGAGCAGGTCTCTGCCAGCCTCGCTGGAGAGGATGCCCTCGTGTCCGTGATGGGCTGTGGGACAAGCAA
GGTCCTTCCCCGAGCCACCCAAGGATGTCCAGCTGGATCTGGTCAAGAAGGTGGAGCCCTTCAGTGGCACTAAGAG
TGACGTGTACAAGCACTTCATCACAGAGGTGGACAGTGTGGCCCTGTCAAAGCCGGGTTCACAGCAGCAAGTCA
GTATGCACACCCCTGCCCCGGTCCCCGACTGCTGGCCACACGGAGCCTCCCTCAGAACCACCACGCAGGGCCAG
GGTAGCTAAGTACAGGGCCAAGTTTGACCCACGTGTACAGCTAAGTATGACATCAAGGCCCTAATTGGCCGAGG
CAGCTTCAGCCGAGTGGTACGTGTAGAGCACCGGGCAACCCGGCAGCCGTATGCCATCAAGATGATTGAGACCAA
GTACCGGGAGGGGCGGGAGGTGTGTAGTTCGGAGCTGCGTGTGCTGCGTTCGGGTGCGTTCATGCCAACATCATCCA
GCTGGTGGAGGTGTTTCGAGACACAGGAGCGGGTGTACATGGTGATGGAGCTGGCCACTGGTGGAGAGCTCTTTGA
CCGCATCATTGCCAAGGGCTCCTTCACCGAGCGTGACGCCACGCGGGTGTGTCAGATGGTGTGGATGGCGTCCG
GTATCTGCATGCACTGGGCATCACACACCGAGACCTCAAACCTGAGAATCTGCTCTACTACCATCCGGGCACTGA
CTCCAAGATCATCATCACCGACTTCGGCTGGCCAGTGTCTCGCAAGAAAGGGTGATGACTGCTTGATGAAGACCAC
CTGTGGCACGCCTGAGTACATTGCCCCAGAACTCTGGTCCGCAAGCCATACACCAACTCAGTGGACATGTGGGC
GCTGGGCGTCAATTGCCCTACATCCTACTCAGTGGCACCATGCCGTTTGAGGATGACAACCGTACCCGGCTGTACCG
GCAGATCCTCAGGGGCAAGTACAGTTACTCTGGGGAGCCCTGGCCTAGTGTGTCCAACCTGGCCAAGGACTTCAT
TGACCGCCTGCTGACAGTGGACCCCTGGAGCCCGTATGACTGCACTGCAGGCCCTGAGGCACCCGTGGGTGGTGAG
CATGGCTGCCTCTTCATCCATGAAGAACCAGCACCGCTCCATATCCCAGAACCTCCTTAAACGTGCCTCCTCGCG
CTGCCAGAGCACCAATCTGCCAGTCCACGCGTTCAGCCGCTCCACACGCTCCAATAAGTCACGCCGTGTGCG
GGAACGGGAGCTGCGGGAGCTCAACCTGCGCTACCAGCAGCAATACAATGGCTGAGCCGCTGGCTGTGCACACA
TGCAGCACGACCCAGCCTGGCCACACACTGTGGTGCCATCTGGGTCCGATGCCCTCTCTGGAGATAGGCCTATGT
GGCCACAGTAGGTGAAGAATGTCTGGCTCCAGCCCTTTCTCTGTGCCTTCAGCAGCCCTGTCTCTACCATGGG
CCTGGGCCAGGTGTGACAGAGTAGAGGTAGCACAGGGGGCTGTGACTCCCCCTGAACTGGGAGCCTGGCCTGGCA
CTGATACCCCTCTTGGTGGGCAGCTGCTCTGGTGGAGTTGGGAAGGGATAGGACCTGGCCTTCACTGTCTCCCTT
GCCCTTTGACTTTTCCCCAATCAAAGGGAAGTGCAGTGTGGGTGGAGTGTCTGTGGCCTCAGGACCCCTTTGGG
ACAGTTACTTCTGGGACCCCTTTCTCTCCACAGAGCCCTTCTCCCTGGTTTCACACATTCCCATGCATCCTGATC
CTTAAGATTATGCTCCAGTGGGAGACCCTGGTAGGCACAAAGCTTGTGCCTTGAAGTGGACCCGTAGCCCTGGCT
AGGTGCAACAGCCCTCCACCTCCAGCCAAGATCTGTCTTCTTCATGGTGCCTCCAGGGAGCCTTCTCTGGTCC
CAGGACCTCTGGTGGAGGGCCATGGCGTGACCTTCACCTTCTGACTGTGTGGCCATGCTGGTTCATCGGCTTG
CCCAGGCTCCAGCCTCTCCAGATTCTGAGGGGTCTCAGCCACCGCCCTTGGTGCCTTCTTTGTAGAGCCCACCG
CTACCTCCCTCTCCCCGTTGGATGTCCATTCCATTCCCCAGGTGCCTCCTTCCCAACTGGGGGTGGTTAAAGGGA
GCCCCACTGTCTACCTAGGGGAATGGGGCACTGGGGGCCAAGGCAGAGGGAAGGGGTCTCCCGATAGGGTC
GAGTGTACGCTGGGTTCATCCTTTGGTGCAGCCCATTTGCCTTTTCCCTTCAGGCTCTGTTGCTCCCTCCTCT
GCAGCTGCACGAAGGCGCCATCTGGTGTCTGCATGGGTGTTGGCAGCCTGGGAGTGATCACTGCACGCCCATCGT
GCACACCTGCCCATCTGTGCACACCCACCCATGGTGCACACCTGTAGTCTCCATGAGGACATGGGAAGGTAGGAG
TTGCCGCCCTGGGGGAGGGTCCCGGGCTGCTCACCTCTCCCCCTTCTGCTGAGCTTCTGCGCACCCCTCCCTGGAA
CTTAGCCATACTGTGTGACCTGCCTCTGAAACCAGGGTGCCAGGGGCACTGCCTTCTCAGAGCTGGCCTTGCCCC
GTCCACCCCTGTGCTGCTTCCCTTCACAGCATTAACTTCCAGTCTGGGTCCCACTGAGCCTCAAGCTGGAAGGAG
CCCCTGCGGGAGGTGGGTGGGGTTGGGTGGCTGCTTTCCAGAGGCCTGAGCCAGAACCATCCCCATTTCTTTTG
TGGTATCTCCCCCTACCACAAACCAGGCTGGAACCCAAGCCCCCTTCTCCACAGCTGCCTTCAGTGGGTAGAATG
GGGCCAGGGCCCAGCTTTGGCCTTAGCTTGACGGCAGGGCCCCCTGCCATTGCAGGAGGGTTTGGTTCCCACTCAG
CTTCTGCCGGTTCGGCAGCCTGGGCCAGGCCCTTTTCTGCTGTGCCACCTCCAGTGGGAAACAAAATAAGAG
ACCACTCTGTGCCAAGTCGACTATGCCTTAGACACATCTCCTACCGTCCCCAATGCCCCCTGGGCAGGAGGCAG
TGGAGAACCAAGCCCCATGGCCTCAGAATTTCCCCCAGTTCCCCAAGTGTCTCTGGGGACCTGAAGCCCTGGGG
CTTACGTTCTCTTGTGCCAGGGTGGGCCTGGTCTGAGGGCAGGACAGGGGGTTTGGAGATGTGGGCCTTTGAT
AGACCCACTTGGGCCTTCATGCCATGGCCTGTGGATGGAGAATGTGCAGTTATTTATTATGCGTATTCAGTTTGT
AAACGTATCCTCTGTATTAGTAAACAGGCTGCCTCTCCAGGGAGGGCTGCCATTCAATTC

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FIGURE 4578

MGCGTSKVLPEPPKDVQLDLVKKVEPFSGTKSDVYKHFI TEVDSVGPVKAGFPAASQYAHPCPGPPTAGHTEPPS
EPPRRARVAKYRAKFDPRVTAKYDIKALIGRGSFSRVVRVEHRATRQPYAIKMIETKYREGREVCESLRVLRRV
RHANIIQLVEVFETQERVYMMELATGGELFDRI IAKGSFTERDATRVLQMVLDGVRYLHALGI THRDLPENLL
YYHPGTDSKIIITDFGLASARKKGDDCLMKTTCTGPEYIAPEVLVRKPYTNSVDMWALGVIAYILLSGTMPFEDD
NRTRLRYRQILRGKYSYSGEPWPSVSNLAKDFIDRLLTVDPGARM TALQALRHPWVVSMAASSSMKNLHRSISQNL
LKRASSRCQSTKSAQSTRSSRSTRSNKSRRVRERELRELNLRYQQYNG

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FIGURE 4579

ATCTGCCACGATGTTGCTGCTCAGCCTGACCCTAAGCCTGGTTCTCCTCGGCTCCTCCTGGGGCTGCGGCATTCC
TGCCATCAAACCGGCACTGAGCTTCAGCCAGAGGATTGTCAACGGGGAGAATGCAGTGTTGGGCTCCTGGCCCTG
GCAGGTGTCCCTGCAGGACAGCAGCGGCTTCCACTTCTGCGGTGGTTCTCTCATCAGCCAGTCCTGGGTGGTCAC
TGCTGCCCCTGCAATGTCAGCCCTGGCCGCCATTTTGTGTCTGCTGGGCGAGTATGACCGATCATCAAACGCAGA
GCCCTTGCAAGTTCTGTCCGTCTCTCGGGCCATTACACACCCTAGCTGGAACCTCTACCACCATGAACAATGACGT
GACGCTGCTGAAGCTCGCCTCGCCAGCCCAGTACACAACACGCATCTCGCCAGTTTGCTGGCATCCTCAAACGA
GGCTCTGACTGAAGGCCTCACGTGTGTACACACCGGCTGGGGTCGCCTCAGTGGCGTGGGCAATGTGACACCAGC
ACATCTGCAGCAGGTGGCTTTGCCCCTGCTCACTGTGAATCAGTGCCGGCAGTACTGGGGCTCAAGTATCACTGA
CTCCATGATCTGTGCAGGTGGCGCAGGTGCCCTCCTCGTGCCAGGGTGACTCCGGAGGCCCTCTTGTCTGCCAGAA
GGGAAACACATGGGTGCTTATTGGTATTGTCTCCTGGGGCACCAAAAACCTGCAATGTGCGCGCACCTGCTGTGTA
TACTCGAGTTAGCAAGTTCAGCACCTGGATCAACCAGGTCATAGCCTACAACTGAGCTCACACAGGCCCTCCCC
AGCTCAACCCATTAAAGACCCAGGCCCTGTCCCATCATGCATTTCATGTCTGTCTTCTGGCTCAGGAGAAAGAAG
AGGCTGTTGAGGGTCCGACTCCCTACTTGGACTTCTGGCACAGAAAGGGGCTGAGTGACTCCTTGAGTAGCAGTGG
CTCTTCCTAGAGTAGCCATGCCGAGGCCGGGGCCCCACCCCTCCTCCAGGGCAACCCCTTGGTCCTACAGCAAG
AAGCCAGAACTGTTGGAATGAATGGCAGCCCTCCCTGGAGAGGCAGCCTGTTTACTGAATACAGAGGATACGTTT
ACAAACTGAATACGCATAATAAAATAACTGCACATTCTCCATCCAAAAAAAAAAAAAAAAAAAA

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FIGURE 4580

MLLLSLTSLVLLGSSWGCIPAIKPALSFSQRIVNGENAVLGSWPWQVSLQDSSGFHFCGGSLISQSWVVTAAH
CNVSPGRHFVVLGEYDRSSNAEPLQVLSVSRAITHPSWNSTTMNNDVTLKLASPAQYTTRISPVCLASSNEALT
EGLTCVTTGWRLSGVGNVTPAHLQQVALPLVTVNQCRQYWGSSITDSMICAGGAGASSCQGDSSGGPLVCQKGNT
WVLIGIVSWGTKNCNVRAPAVYTRVSKFSTWINQVIAYN

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FIGURE 4581A

GGCACGAGGGGGCGGGGACAGCGGGCGGGGACAGCGGGCGGGCTGGGACGGCGGGGTGCGGGCGGGGCCGAGCCCCG
ACGATGCCCTCACTTCACCGTGGTGCCAGTGGACGGGGCCGAGGCGCGGCGACTATGACAACCTCGAGGGGCTCAGT
TGGGTGGACTACGGGGAGCGCGCCGAGCTGGATGACTCGGACGGACATGGCAACCACAGAGAGAGCAGCCCTTTT
CTTTCCCCCTTGGAGGCTTCCAGAGGAATTGACTACTATGACAGGAACCTGGCACTGTTTGAGGAAGAGCTGGAC
ATCCGCCCAAAGGTATCGTCTCTTCTGGGAAAGCTCGTCAGCTACACCAACCTCACCAGGGGCGCCAAAGAGCAT
GAGGAGGGCCGAGAGTGGGGAGGGCACCCGCCGGAGGGCAGCCGAGGCACCCAGCATGGGCACCCCTCATGGGGGTG
TACCTGCCCTGCCTGCAGAATATCTTTGGGGTTATCCTCTTCTGCGGCTGACCTGGATGGTGGGCACAGCAGGT
GTGCTACAGGCCCTCCTCATCGTGCTTATCTGCTGCTGTTGTACCCTGCTGACGGCCATCTCCATGAGTGCCATC
GCCACCAACGGTGTGGTTCCAGCTGGGGGCTCCTATTTTCATGATCTCTCGTTCACTGGGGCCAGAATTTGGAGGT
GCTGTGGGCCTGTGCTTCTACCTGGGAACAACATTTCGACAGGCCATGTACATCCTGGGGGCCATCGAGATCTTG
CTGACCTACATTGCCCCACCAGCTGCCATTTTTTACCCATCGGGTGCTCATGACACGTCGAATGCCACTTTGAAC
AATATGCGTGTGTATGGGACCATTTTCTGACCTTCATGACCTGGTGGTGTGTTGTGGGGGTCAAGTATGTGAAC
AAATTTGCCTCGCTCTTCTGGCCTGTGTGATCATCTCCATCCTCTCCATCTATGCTGGGGGCATAAAGTCTATA
TTTGACCTCCCGTGTTTCCGGTATGCATGCTGGGCAACAGGACCCTGTCCCGGGACCAGTTTGACATCTGTGCC
AAGACAGCTGTAGTGGACAATGAGACAGTGGCCACCCAGCTATGGAGTTTCTTCTGCCACAGCCCCAACCTTACG
ACCGACTCCTGTGACCCCTACTTCATGCTCAACAATGTGACCGAGATCCCTGGCATCCCCGGGGCAGCTGCTGGT
GTGCTCCAGGAAAACCTGTGGAGCGCCTACCTGGAGAAGGGTGACATCGTGGAGAAGCATGGGCTGCCCTCCGCA
GATGCCCCGAGCCTGAAGGAGAGCCTGCCCTGTACGTGGTCGCTGACATCGCCACATCCTTACCGTGCTGGTC
GGCATCTTCTTCCCTTCTGTAACAGGCATCATGGCTGGCTCAAACCGCTCTGGGGACCTTCGTGACGCCCAGAAG
TCTATCCCTGTGGGGACCATTCTGGCCATCATTACAACCTCCCTCGTGACTTCAGCAGTGTGGTTCTCTTTGGT
GCCTGCATTGAGGGTGTGGTTCTCCGGGACAAGTATGGCGATGGTGTGACAGGAACCTGGTGGTGGGCACACTG
GCCTGGCCTTCACCTGGGTGTCATCGTCATCGGCTCCTTCTTTTCAACGTGTGGCGCTGGCCTCCAGAGCCTCACA
GGGGCACCACGCCATTGACAGGCCATTGCCAAGGACAACATCATCCCTTCCCTCCGGGTGTTTGGCCACGGGAAG
GTGAATGGTGAACCCACATGGGCACTCCTCCTGACGGCACTCATCGCCGAGCTGGGCATCCTCATCGCCTCCCTC
GACATGGTGGCCCCATCTTATCCATGTTCTTTCTGATGTGCTACCTGTTTCGTGAACCTCGCCTGTGCGGTGCAG
ACACTCCTGAGGACCCCCAACTGGCGGGCCCCGGTTCAAGTACTATCACTGGGCGCTGTCTTCTGGGCATGAGT
CTCTGCCCTGGCCCTTATGTTTGTCTCCTCCTGGTACTATGCCCTGGTGGCCATGCTCATCGCCGGCATGATCTAC
AAATACATCGAGTACCAAGGGGCTGAGAAGGAGTGGGGTGACGGGATCCGAGGCCTGTCCCTGAGCGCTGCCCG
TACGCGCTGTTGCGGCTGGAGGAGGGGCTCCTCACCAAGAACTGGCGGCCGACGCTGCTGGTGTCTGCTGAAG
CTGGACGAGGACCTCCACGTGAAGTACCCGCGGCTCCTACCTTCGCCTCCAGCTCAAGGCTGGCAAGGGCCTG
ACCATGTTGGTTCTGTCTATCCAGGGGAGCTTCTTGAGAGCTATGGCGAGGCTCAGGCGCCGACAGACCATC
AAGAACATGATGGAATGAGAAGGTGAAGGGCTTCTGCCAGGTGGTGGTGGCCAGCAAGGTGCGGGAGGGGCTG
GCCCACCTCATCCAGTCTGTGGCCTGGGAGGCATGCGGCATAACTCCGTGGTGTCTGGGCTGGCCCTACGGCTGG
CGACAGAGCGAGGACCCCCGTGCCTGGAAGACCTTCATTGACACCGTGCCTGCACTACGGCTGCCACCTGGCC
CTGCTCGTGCCCAAGAACATCGCCTTCTACCCACAGCAACCACGAGCGCTACCTGGAGGGCCACATAGACGTGTGG
TGGATCGTGCACGATGGTGGCATGCTCATGCTTCTGCCCTTCTGCTGCGCCAGCATAAGGTCTGGAGGAAGTGC
CGGATGCGCATCTTCACAGTGGCCCAGATGGATGACAACAGCATCCAGATGAAGAAGGACCTGGCTGTCTTTCTG
TACCATCTGCGCCTTGAGGCCGAGGTGGAGGTGGTGGAGATGCATAACAGTGACATCTCTGCATACACCTACGAG
CGGACGCTGATGATGGAGCAGCGGTGCGAGATGCTGCGGCAGATGAGACTGACCAAGACTGAGCGGGAGCGAGAA
GCCCAGCTGGTCAAGGATCGGCACTCGGCCCTGAGGCTGGAGAGCCTGTACTCGGACGAGGAAGATGAGTCTGCA
GTGGGGGCTGACAAGATCCAGATGACGTGGACCAGGGACAAGTACATGACTGAGACCTGGGACCCAGCCATGCC
CCTGACAATTTCCGGGAGCTGGTGCACATTAAGCCGGACCAATCCAATGTGCGGCGCATGCACACTGCTGTGAAG
CTCAATGAAGTCATTGTACGCGCTCCACGACGCGCCGCTGGTTCTCCTAAACATGCCTGGCCACCCAGGAAC
AGTGAGGGCGACGAGAACTACATGGAGTTCCTCGAGGTGCTGACCGAGGGCCTTGAGCGGGTGTGTTGGTGGCG
GGTGGTGGCCGTGAAGTCATCACCATCTACTCTGAGGCCAGTGTATCTTGTGGCCTGGAGTCGAGGTCTTGGC
CAGGACATAACAAGCTGTGGTCTGGGGTAACAGCCTCTTCCAGCACCCACCTGCCAGCCCTGCTTGCCTGGCCC
TGTCTTGACCCAGCTTTGCTAGGTCTCCTTGGAACCAGGCCTGGGCCTCAAAATGGAGATGGATCCCAGGTCT
TGTGGGACCCTGGGATGTTTGGGGACTTTACTATCTAGCACCCAGTAGGCCTGTCTGGCCAGAGAAGACTGGT

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FIGURE 4581B

AGGGGCCGAGTGGGGTTTGAAGGCAGCCGGCCCGGCCAGCCAGGAGCGCTATTTATTGCATATTTATTGTTTG
GATGTCACCATCAGAGACGAAGGGAAGGGTAGCCAGGGAGGGAGTCCAGCCCAGCTGCCTGCAGGAAGATCTGGC
TCAGTCTACTATGGGCAGGGCCCCCACCAGCTGAGCCGAATGGAGACAGCTGAGCTGAGGCCTGACTTTTTCA
ATAAACATTGTGTAGTTCTGGGCAA

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FIGURE 4582

MPHFTVVPVDGPRRGDYDNLEGLSWVDYGERAELDDSDGHGNHRESSPFLEASRGIDYYDRNLALFEEELDI
RPKVSSLLGKLVSYTNLTQGAKEHEEAESGEGTRRRRAEAPSMGTLMGVYLPCLQNI FGVLFLRLTWMVGTAGV
LQALLIVLICCCCTLLTAISMSAIATNGVVPAGGSYFMISRSLGPEFGGAVGLCFYLGTTFAAAMYILGAIEILL
TYIAPPAAIFYPSGAHDTSNATLNNMRVYGTIFLTFMTLVVFVGKYNKFASLFLACV IISILSIYAGGIKSIF
DPPVFPVCM LGNRILSRDQFDICAKTAVVDNETVATQLWSFFCHSPNLTTDSCDPYFMLNNVTEIPGIPGAAAGV
LQENLWSAYLEKGDIVEKHGLPSADAPSLKESLPLYVADIATSF TVLVGIFFP SVTGIMAGSNRSGDLRDAQKS
IPVGTILAIITTSLVYFSSVVLFGACIEGVVLRDKYGDGVSRLNVVGT LAWPSPWVIVIGSFFSTCGAGLQSLTG
APRLQAIADNII PFLRVFGHGKVNGEPTWALLLTALIAELGILIASLDMVAPILSMFFLMCYL FVNLA CAVQT
LLRTPNWRPRFKYYHWALSFLGMSLCLALMFVSSWYALVAMLIAGMIYKYIEYQGAKEWGDGIRGLSL SAARY
ALLRLEEGPPHTKNWRPQLLVLLKLDEDLHVKYPRLLTFASQLKAGKGLTIVG SVIQGSFLESYGEAQAAEQTIK
NMMEIEKVKGFCQVVVASKVREGLAHLIQSCGLGGM RHNSVVLGWPYGWRQSEDPRAWKTFIDTVRCTTA AHLAL
LVPKNIAFYPSNHERYLEGHIDVWWIVHDGGM LMLLPFLLRQHKVWRKCRMRIFTVAQMDDNSIQMKDLAVFLY
HLRLEAEVEVVMHNSDISAYTYERTLMMEQRSQMLRQMRLTKTEREREAQLVKDRHSALRLESLSYDEEDES AV
GADKIQMTWTRDKYMTETWDPSHAPDNFREL VHIKPDQSNVRRMHTAVKLNEVIVTRSHDARLVLLNM PGPPRNS
EGDENYMEFLEVLTEGLERVLVVRGGGREVITIIYS

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FIGURE 4583

ATCGCCAGCCTCCAGTCTGCCTCCACGACGCGCCCTTCCCCAAGGCTGGCCGGGTCTGGATGTCGCCATCCCCCT
ATTGGAGCTACAGACCTCGCAGCTGAACTCTTAAAAAGAACCTCGCTTCTTCCTCACGGTGCTCCAGCTCCACA
CACCGTACTGAGCCTCGCCAGCCACCGTACGCGAGGTGCGGGCGCGTCCGTGACGTCAGTGATGTGCGCTTCTCC
CGCACTAAGGGAAACATGGCTCTAACGCGGGCCGGTGC GGCTCTTTTCCCTCGTGACTCGGTTGCTCCTGGCGCCG
CGACGGGGCCTCACGGTCCGCACTCCCGACGAACCCCTGCCGGTGGTGC GCATCCCAGTGGCTCTACAGCGGCAG
TTGGAACAGCGGCAGAGCAGGCGGGCGGAACCTCCCGAGGCCGGTGTGGTTCGACCCGGACCGCTGCTGGTTTCG
GCGCGGGCGGCCGGAGTTGAACCAGCCGGCGCGCTCACACTGGGCCGTTGGGAGCGCGCGCCGCTAGCCTCTCAA
GGCTGGAAGAGTCGACGCGCGCGTCCGGGACCATTCTCCATCGAGCGCGCGCAACAGGAGGCCAGCGGTGCGA
AAGCTCTCGTCTAAGGGCAGCTTTGCTGACCTGGGCCTGGAGCCCCGTGTGTGTCACGCACTACAGGAGGCTGCG
CCTGAAGTCGTTAGCCCAACAACCGTGCAGTCTAGCACCATCCCCCTACTACTTCGCGGCCGCCATGTCGTTTGC
GCCGAGAAACCGGCAGTGGCAAGACTCTCAGCTACCTCCTGCCGTGCTTCAACGGCTCTTGGGCCAGCCAAGC
CTGGACTCCCTTCTATCCCCGCGCCCCGAGGCCTGGTCTTGTTCCTTCCCGAGAAATTGGCCAACAGGTGCGG
GCTGTGGCCCAACCTTGGGGCGCTCCTTGGGCCGTGCTGGTGC GGGACCTGGAGGGAGGCCACGGCATGCGTAGG
ATCAGGCTGCAGCTGTCCAGACAGCCTTCAGCAGATGTGCTTGTGGCCACTCCAGGGGCTCTGTGGAAGGCCCTG
AAAAGTCGACTGATCAGTCTGGAGCAACTCTCCTTCTTGGTGTGGATGAGGCAGACACACTGCTGGATGAAAGC
TTCCTGGAAGTGGTGGACTACATCTTAGAGAAGAGCCACATAGCAGAAGGCCAGCTGACTTGGAAAGACCCCTTC
AATCCCAAAGCTCAGTTAGTGTGCTGGTAGGAGCCACATTTCCCGAAGGTGTAGGCCAGTTGCTGAATAAAGTCGCC
AGCCCAGATGCTGTACACCACCATCACCAGCTCCAAGCTCCACTGTATCATGCCTCATGTGAAACAGACATTTCTG
AGACTGAAGGGAGCAGATAAGGTGGCCGAGCTGGTGCACATCCTCAAGCATCGTGACAGAGCAGAAAGGACTGGT
CCCTCAGGAAGTGTCTGGTGTCTGTAAATAGCTCCAGCACTGTGAAC TGGCTGGGATATATTCTGGATGACCAC
AAAATCCAACACCTAAGGTTGCAGGGGCAATGCCAGCCTTGATGAGGGTAGGAATCTTCCAGTCCCTCCAGAAG
AGCTCCCGAGACATACTTCTCTGCACAGACATAGCCTCTCGGGGCCCTGGACAGCACTGGTGTGGAGCTGGTTGTC
AATTATGATTTCCCCCAACGCTGCAAGATTACATCCACAGAGCAGGGAGAGTGGGCCGTGTGGGGAGCGAGGTG
CCAGGCACCGTCATCAGTTTTGTGACCCATCCCTGGGATGTGAGCCTGGTTCAGAAGATTGAGCTGGCGGCTCGC
CGAAGGAGAAGTCTTCCAGGACTAGCATCCTCGGTGAAAGAGCCTTTGCCCCAAGCAACCTGATTTTGACAAATC
TGATTAAATGTGATGCTAGAACAGGGATCTTTCCAGTATCTTGAGTGGGTGACCACACTTGTGAGTGGGAGGC
TCTGGGCTGCCCTGTCGGCTCCTTGAGGGCGGGATGAACTGCTTTGTGACTTGGAAGGTACGCTGCTGGCCAGC
ATTGGAGAAGAAGCTGCTGAGCATGGCTTTCTGTAGTCTTTAGCAAGACACAAGTGGATTTTGACTTTGTATCAT
GTCATGATTTCTAACAATAAATGATGTTTTTATGTGC

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[illegible]

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FIGURE 4585

MILNSLSLCYHNKLILAPMVRVGTLPMLLLALDYGADIVYCEELIDLKMIQCKRVVNEVLSTVDFVAPDDRNVFR
TCEREQNRVVFQMGTSDAERALAVARLVENDVAGIDVNMGCPKQYSTKGGMGAALLSDPKIEKILSTLVKGTRR
PVTCKIRILPSLEDTLVLKRIERTGIAAIAVHGRKREERPQHPVSCEVIKAIADTLVIPVIANGGSHDHIQQYS
DIEDFRQATAASSVMVARAAMWNPSIFLKEGLRPLEEVMQKYIRYAVQYDNHYTNKYCLCQMLREQLESPOGRL
LHAAQSSREICEAFGLGAFYEETTQELDAQARLSAKTSEQTGEPAEDTSGVIKMAVKFDRRAYPAQITPKMCLL
EWCRRKLAQPVYETVQRPLDRLFSSIVTVAEQYQSTLWDKSKKLAEQAAAIVCLRSQGLPEGRLGEESPSLHK
RKREAPDQDPGGPRAQELAQPGDLCKKPFVALGSGEESPLEGW

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FIGURE 4586A

CGGCTGCGGTTCTGCTGCTGCTCGGCGCGCGGCCAGCTTTCGGAACGGAACGCTCGGCGTTCGCGGGCCCCGCCC
GGAAAGTTTGCCGTGGAGTCGCGACCTCTTGCCCGCGCGGCCCGGCATGAAGCGGCGTTGAGGAGCTGCTGCCG
CCGCTTGCCGTGCCGCCGCCGCCCTGAGGAGGAGCTGCAGCACCTTGGGCCACGCCGATGACTACTGCAAAC
TGTGGCGCCCACGACGAGCTCGACTTCAAACCTGCTTTTGCGGAGGACGGGGCGCCGGCGCCGCCGCCCGGGC
TCGCGGCCCTGCAGATCTTGAGCCAGATGATTGTGCATCCATTTACATCTTTAATGTAGATCCACCTCCATCTACT
TTAACCACACCCTTTGCTTACCACATCATGGATTACCGTCTCACTCTTCTGTTTTGTACCATCGTTTTAGCTC
CAAAGTCACAAAACCTATGAAGGAACCTGTGAGATTCTGAATCTAAATATAGCCATTAGGTGGTCCCAAACCC
TTTGAGTGCCCAAGTATTCAAATTACATCTATCTCTCTAACTGTCAATGAAGCTGCAGCCGATTTACCTT
CTACAGATAAATGACCCAGAACGGGAATTTTGGAAAGGCCCTTCTAGAGATCATCTCTATCTTCTCTTGAGCCA
TCCTACCGGGAGTCTTCTCTTAGTCTTAGTCTGCCAGCAGCATCTCTTCTAGGAGTTGGTTCTCTGATGCATCT
TCTTGTAATCGTTTTACATATTTATGATGATGTGGACTCAGAGTTGAATGAAGCTGCAGCCGATTTACCTT
GGATCCCCCTCTGACTTCTCTGCTGGTGGCTCTCCAGGGGGCTGCCCTGGAGAAGAACTTGGCATCAACAGTATGGA
CTTGGAACCTCATTATCACCCAGGCAATCTCCTTGCCACTCTCCTAGATCCAGTGTCACTGATGAGAATTGGCTG
AGCCCCAGGCCAGCCTCAGGACCTCATCAAGGCCACATCCCCCTGTGGGAAACGGAGGCACCTCAGTGCTGAA
GTTTGTTATGCTGGGTCCCTTTCACCCCATCACTCACCTGTTTCTTACCTGGTCACTCCCCCAGGGGAAGTGTG
ACAGAAGATACGTGGCTCAATGCTTCTGTCCATGGTGGGTGAGGCCCTTGCCCTGCAGTTTTTCCATTTAGTAC
TGTGTAGAGACTGACATCCCTCTCAAAACAAGGAAAACCTTCTGAAGATCAAGCTGCCATACTACCAGGAAAATTA
GAGCTGTGTTAGATGACCAAGGGAGTTTATCACCAGCCCGGGAGACTTCAATAGATGATGGCCTTGATCTCAG
TATCCTTTAAAGAAAGATTATGTGGTGATCAGTTTCTTTTCACTTCTTACCTTTTACCTGGAGCAAACCAAAG
CCTGGCCACACCCCTATATTTGCGACATCTTATTACCTCCACTAGACTGGCCTTTACCAGCTCATTTTGGACAA
TGTGAACCTGAAAATAGAAGTGCAACCTAAAACCTCATCATCGAGCCATTATGAAACTGAAGGTAGCCGAGGGGCA
GTAAAAGCATCTACTGGGGGACATCCTGTTGTGAAGCTCCTGGGCTATAACGAAAAGCCAATAAATCTACAAATG
TTTATTGGGACAGCAGATGATCGATATTTACGACCTCATGCATTTTACCAGGTGCATCGAATCACTGGGAAGACA
GTCGCTACTGCAAGCCAAGAGATAAATAATTGCCAGTACAAAAGTTCTGGAAATTCCACTTCTTCTGAAAATAAT
ATGTCAGCCAGTATTGATTGTGCAGGTATTTGAAACTCCGCAATTCAGATATAGAAGTTGAAAAGGAGAACT
GATATTGGCAGAAAGAATACTAGAGTACGACTTGTGTTTCGTGTACACATCCCACAGCCAGTGGAAAAGTCCTT
TCTCTGCAGATAGCCTCTATACCCGTTGAGTGCTCCAGCGGTCTGCTCAAGAACTTCTCATATTGAGAAGTAC
AGTATCAACAGTTGTTCTGTAATGGAGGTGATGAAATGGTTGTGACTGGATCTAATTTTCTTCCAGAATCCAAA
ATCATTTTCTTGAAAAGGACAAGATGGACGACCTCAGTGGGAGGTAGAAGGGAAGATAATCAGGGAAAAATGT
CAAGGGGCTCACATTGTCTTGAAGTTCTTCCATATCATAACCCAGCAGTTACAGCTGCAGTGCAGGTGCACCTT
TATCTTTGCAATGGCAAGAGGAAAAAAGCCAGTCTCAACGTTTACTTATACACCAGTTTGTATGAAGCAAGAA
CACAGAGAAAGAGATTGATTGTCTTCACTTCCATCTTTGCTGTGCTCATCTGCTCAGACCCAGAGGCCTTCC
TCTGATTACGGGTGTTTACATGACAGTGTACTGTGAGGACAGAGAAGTTTGATTGTCTCATCCACAAACATAT
GCATCCATGGTGACCTCATCCCATCTGCCACAGTTGCAGTGTAGAGATGAGAGTGTATAGTAAAGAACAGCATATG
ATTCTTCTCCAATTGTACACCAGCCTTTTCAAGTCACACCAACACCTCCTGTGGGGTCTTCTATCAGCCTATG
CAAATAATGTTGTGTACAATGGACCAACTTGTCTTCTTATTAATGCTGCCTCTAGTCAAGAATTTGATTGAGTT
TTGTTTCAGCAGGATGCAACTCTTTCTGGTTTAGTGAATCTTGGCTGTCAACCACGTGCATCCATACCAATTCAT
TCTTCAAATTCAGGCTCAACAGGACATCTCTTAGCCCATACACCTCATTCTGTGCATACCCTGCCTCATCTGCAA
TCAATGGGATATCATTGTTCAAATACAGGACAAAGATCTCTTTCTTCTCCAGTGGCTGACCAGATTACAGGTGAG
CCTTCTCTCAGTTACAACCTATTACATATGGTCTTTCACATTCAGGGTCTGCTACAACAGCTTCCCCAGCAGCT
TCTCATCCCTTGGCTAGTTACCCGCTTTCTGGGCCACCATCTCCTCAGCTTCAGCCTATGCCTTACCAATCTCCT
AGCTCAGGAACCTGCCTCATCACCCTCTCCAGCCACCAGAATGCATTCTGGACAGCACTCAACTCAAGCACAAAGT
ACGGGGCCAGGGGGGTCTTTCTGCACCTTCATCCTTAATATGTCACAGTTTGTGTGATCCAGCGTCATTTCCACCT
GATGGGGCAACTGTGAGCATTAACCTGAACCAGAAGATCGAGAGCCTAACTTTGCAACCATTTGGTCTGCAGGAC
ATCACTTTAGATGATGACCAATTTATATCTGACTTGGAAACACCAGCCATCAGGTTTCAAGAGAGAAATGGCTAAC
CACAGTGTCTCTCATGTCCAGCTCCTTTCTGGAGAATCTAGAGGTGAACGAGATAATTGGGAGAGACATGTCCC
AGATTTCTGTTTTCCCAAGGAGCAGGGGTGAGCAGGCAGGCTCCCTCCCGAGTCTGAGTCCCTGGATTTAGGAA
GATCTGATGGGCTCTAACAGTGCTTACTGCAGCCTTGTGTCCACCACCAACTTCTCAGCATGTTTTCTCTCTTGG

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FIGURE 4586B

ACCTTGGGTTTCCAACCTCTGCAGCCTTCAGGTCTGGGGCCAGGAGTGGGACCCACCATTTGTGGGGAAAGTAGCA
TTCCTCCACCTCAGGCCTTGGGTAGATTTGGCAAAAGAACAGGAGCAGCATAGGCTGTTTGAGCTTTGGGGAAAT
GAACTTTGCTTTTTATATTTAACTAGGATACTTTTATATGATGGGTGCTTTGAGTGTGAATGCAGCAGGCTCTCT
TGTTCGAGGTGCTGCTTTTGCAGGTGACCTGGTTACTTAGCTAGGATTGGTGATTTGTACTGCTTTATGGTCA
TTTGAAGGGCCCTTTAGTTTTTATGATAATTTTAAAATAGGAACTTTGTATAAGACCTTCTAGAAGCC

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FIGURE 4587

MTTANCGAHDELDFKLVFGE DGAPAPPPPGSRPADLEPDDCASIYIFNVDPPPSTLTTPCLPHHGLPSHSSVLS
PSFQLQSHKNYEGTCEIPESKYSPLGGPKPFECPSIQITSISPNCHQELDAHEDDLQINDPEREFLEPSPRDHLY
LPLEPSYRESSLSPSPASSISSRSWFS DASSCESLSHIYDDVDSELNEAAARFTLGSPLTSPGGSPGGCPGEETW
HQQYGLGHSLSRQSPCHSPRSSVTDENWLSRPPASGPSSRPTSPCGKRRHSSAEVCYAGSLSPHHSPVPSPGHS
PRGSVTEDTWLNASVHGGSGGLGPAVFPPQYCVETDIPLKTRKTS EDQAAILPGKLELCSDDQGSLS PARETSIDD
GLGSQYPLKKDSCGDQFLSVPSPTWSKPKPGHTPIFR TSSLPPLDWPLPAHFGQCELKIEVQPKTHHRAHYETE
GSRGAVKASTGGHPVVKLLGYNEKPINLQMFIGTADDRYLREHAFYQVHRITGKT VATASQEII IASTKVLEIPL
LPENNMSASIDCAGILKLNSDIELRKGETDIGRKNTRVRLVFRVHIPQPSGKVL SLQIASIPVECSQRSAQELP
HIEKYSINSCSVNGGHEMVVTGSNFLPESKIIIFLEKGQDGRPQWEVEGKIIREK CQGAHIVLEVPPYHNPAVTAA
VQVHFYLCNGKRKKSQSQRFTYTPVLMKQEHREEIDLSSVPSLPVPHPAQTQRPSSDSGC SHDSVLSGQ RSLICS
IPQTYASMVTSSHLPQLQCRDESVSKEQHMI P SPIVHQPFQVTPFPV GSSYQPMQINVVYNGPTCLPINAASSQ
EFDSVLFQQDATLSGLVNLGCQPLSSIPFHSSNSGSTGHLLAHTPHSVHTLPHLQSMGYHCSNTGQ RSLSSPVAD
QITGQPSSQLQPIITYGPHSGSATTASPAASHPLASSPLSGPPSPQLQPMPIYQSPSSGTASSPSPATRMHSGQHS
TQAQSTGQGLSAPSSLICHSLCDPASFPDPGATVSIKPEPEDREP NFATIGLQDITLDDDQFISDLEHQPSGSA
EKWPNH SVLSCPAFWRI

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FIGURE 4588A

GGCACGAGGGGCACCATTTGGATGCTTACTTTTCAGGTGAGCAGGACCCAGCCTGACTTGCCAGCTACCACTTATGAT
TCAGAGACTAGGAATCCTGTATCTGAAGAGTTGCAGGTGTCTAGTAGTTCTGATTCTGACAGTGACAGCTCTGCA
GAGTATGGAGGGGTTGTTGACCAGGCAGAGGAATCTGGAGCTGTCAATTTTAGAAGAGCAACTAGCAGGTGTCTCA
GCAGAGCAAGAAGTTACATGTATCGATGGAGGCAAGACCCCTCCCCAAACAGCCATCTCCCCAGAAGTCTGAGCCT
CTGCTACCTTCTGCTTCTATGGATGAGGAAGAAGGGGACACTTGTACAATATGTCTGGAACAGTGGACCAATGCT
GGGGACCACCGGCTCTCAGCATTACGCTGTGGGCATCTCTTTGGGTATAGGTGCATTTCCACGTGGCTTAAAGGA
CAAGTACGAAAATGTCCCCAGTGCAACAAGAAAGCCAGGCACAGTGACATTGTCTGTCCTTTATGCCCGAACCCCTG
AGAGCTTTGGACACTAGTGAACAGGAGCGCATGAAAAAGTTCCCTACTGAAGGAACAGATGCTAAGGAAACAGGCC
GAGTTAGAATCAGCACAGTGCCGACTCCAACCTGCAGGTCTCTACTGATAAGTGCACTAGGCTTCAAAGGCGTGT
CAGGACTTGCAAAAACCTTACGTACATCAAAGTCAGAAATTTACAGCAACCCAGGGGCTCCCAAGCATGGGTCTCTG
AGCTGCTCACCCCTCCAGCCAGGGCCAGCACAAAGCACAAAGTACCACCTTCCAAAAGACCTTTCACAGTATCTCAGGCA
GGAAACTGCCGGATCATGGCATACTGTGATGCTCTGAGCTGCCTGGTGATATCACAGCCTTCTCCTCAGGCCTCT
TTTCTTCCAGGCTTTGGTGTTAAGATGTTGAGTACTGCCAACATGAAGAGCAGTCAGTACATTCCGATGCATGGC
AAACAGATCCGTGGACTGGCGTTTAGCAGTTACCTCAGAGGCTTGCTACTCTCTGCTTCCCTAGACAACACTATT
AACTGACCAGCCTGGAGACAAATACCGTGGTCCAGACTTATAATGCTGGACGTCTGTCTGGAGCTGTTGCTGG
TGTCTTGATGAGGCTAACTACATCTATGCTGGACTGGCCAATGGTTCAATTCTGGTATATGACGTGCGAAACACG
AGCAGTCATGTGCAGGAGTTAGTAGCTCAGAAAGCCAGATGCCCACTGGTCTCCCTGTCTATACATGCCCAGAGCT
GCCTCAGCTGCATTTCCATATGGTGGGTGCTGGCTGGAAACCTTGAGGATGCTTCATTCTGGGAACAGAAAATG
GACTTTTCTCATTGGCCTCATGTGCTGCCCTTGGAGCCAGGGGCTGCATAGACTTTCAGACAGAGAACAGCTCC
CGGCACTGTCTTGTGACCTACAGGCCTGATAAAAAATCACACCACCATACGAAGTGTGCTGATGGAAATGTCTTAC
CGACTGGATGACACTGGAAATCCAATCTGCTCCTGCCAGCCTGTACATACATTTTTTGGAGGACCTACTTGCAAA
CTATTGACCAAAAATGCCATTTTCCAAAGCCAGAGAATGATGGCAACATCCTGGTGTGTACTGGGGATGAAGCA
GCAAATCTGCCCTGCTGTGGGATGCTGCCAGTGGCTCGTTGCTCCAGGACCTACAGACCGATCAGCCTGTGTTG
GACATCTGCCCATTTGAGGTGAACCGTAACAGCTACTTGGCTACCTTAACAGAGAAGATGGTCCACATCTATAAG
TGGGAGTGAAGTGTGGTCTCGAAACCTTGAAGGCATGCTGCTGGTTAGATGTTGTTTGTAGCGCCTAGCAGCCCC
AAGCAAGATCCCTGTTTATTGTCTGCAGTCTAGAACATTGGGAATCATGGTTTGTGTTGCTAGCAGCCTAGCAGCCCC
GACCCTAGGTCACTGAGACACTACAGATTGTGTATCTGTTATGTCCACTAAAAGAGTAATTGATGGGTACTTTAT
CTACATTATCCATTTCTTGGGTTTAAAGCCTTCATTAACCATATTGTATGTTGGAATTTCTATTTTCTTTATT
TTCTGTGTGACTTTCTGGACCTTAGAGAGTGTCTCTCATCATCTAGGATGTGAGTGGGCATCAAGCATTTTCTG
GGGAATATGACATCCCATCTGAGTTGTCTGTCACTTAAGTATCCCTGAAGGGACTAACCATCGTCTTGGTACTG
ATTTGATGCAACGTAGATGTAAAAGAGTATTATTCAGTTGAACACAAGAGGGCAGTGAACCTTGTGTCGGT
TTATTTCTGACCTTGAAGGCTGACAACTTTTATGTAACCTGTCTCATCTCCACACAAGTGTGTGATGACACACCT
GGGTGTGCTTTGTGGCAATAACACTTGTGTTCCAGGTGTGAAGTGTGGGACATTGGCAGGCCCAGTGAAGGAAG
CAGCTAGTGAACGATTCCCTTTGCTAATGCCCTAGTGCATTAAGTTCAATTGCTTTGCGAAAGGTAAGGAAAGAGGC
CAGTTGTTTGAAGCGGTGGGGAAGATTTTGTTTTTTCTAGCCAGCTTAGGATCTCAGGATTGGTTTTATCCAAGCT
AGTGCTTTGAAGAACACTATCTCTTGCCAGGAAAAAGATGAGTGATAGGTCAAAGCTTTTACTTGAGTCTCCCTA
GTGTCAGAGATCAGGAGAAAAGACATAAGAGAAATTTACAAAAGCTATTTCAGACTGCTATTGAAAACATGAGAAGA
ACTTGTCTCCCATTTTGAAGGTTCCCTATCTAAATAAAGCCAATTCCTCAGACTGAGGGGCTGTTCTTAAGTGTTT
TTTATACATTCCAGTTATCCAGTTAAAGCCTTCCCCATGTGAAGCTGATGTTTGATTCCAGTTTCTTTGATTTG
CCTCCCTAACCTTTTCTAGGGCTCAGTTTGTATTTCTTTGCCTGCTCAGACTACTTTGCCAACCACCTTCCAC
AACAGAATATGCTTCAAGATGTGGGCAGGTGAGTGTCTGTTTATGGGAGAAAATGGCTTAACAGTCTGATTTTCT
TCAAATGATTATTGAAGAGTTGTTATCGTTTTTATTATAAAACACTTCTGACCTGTCAATTCAAGAGCTGTTTCT
AGGATCTTTCTCTCCGGCAAGGGGTTGTTGCACTAGATTTCCTCAGAGTTCCAAGTTCTAGTTGTGCTTTTTAAT
GACCCTTTAATATTTTAGGACATAATTTTTCTTTTTTAAATTTTTTGTAGAAATAGATGTTTCACTACGTTG
TCCAGGCTGGTCTTGGACTCCTGGCCTCAAGCAATCCTCCACCTCAGCCTCCTAAAGTGCCAAAATTATAGGCG
TGAGCCACTGCACCCGGCCCTATTGAAGACGTCTTTTGTAAAAGCTAGCTTCTAGAACCTGAGAAAAGCTCTT
TTCTCAGAGGAGATACTCCTTTTGATATGTTAATGATTAAGAGTGGTTGCCAGGCCTAGTTTCAGTGGCAGAAT
AGGATTGGAATTAAGGAGCAGAACTCATCTGGCTTCAGCAGATTGCCACCAAGAGGATACAGGTGGTCAGGTCTCT

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FIGURE 4588B

GGCTGGCTTTGTCTTTGGGCCTGGGCAGGCTTAGGATTGACTTTCTTTGAAGTACCTGATGCTGATTGATTCCA
CTAATAGTAGGAAGCAAGAGACTTAACTATGAGGGACGTTATGTGAATCTTAAGTCTTACCAGTCCTTGCATTAG
TACATTAAATTTGGATGTTTTGGAAGCAAATTCATACGATCGTGAGTGATTCTCCAAAGAAAAAAGCCTTGTC
CAGCCTGACCAACATGGTGAACCCCATCTCTACTAAAAATACAAAAATTAAGTGGGTGCAGTGGTGCGCATGCC
TGTAAGTCCCAGCTACTTGGGAGGCTGAGGCAGGAGAATTGCTTGAACCCCTGGGAGGCAGAGGTTGCAGTGAGTCG
AGATCGCGCCACTGCACTCCAGCCTCGGTGACAGAGCAAGACTCCATCTCAAAAAAAAAAAAAAAAAAAAAAA
AA

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FIGURE 4589

MKSSLLKEQMLRKQAELESAQCRLQLQVLTDKCTRLQRRVQDLQKLTSHQSQNLQQPRGSQAWVLSCSPSSQGQH
KHKYHFQKTFTVSQAGNCRIMAYCDALSCLVISQPSPOASFLPGFGVKMLSTANMKSSQYIPMHGKQIRGLAFSS
YLRGLLLSASLDNTIKLTSLETNTVVQTYNAGRPVWSCWCLDEANYIYAGLANGSILVYDVRNTSSHVQELVAQ
KARCPLVSLSYMRAASAAFPYGGVLAGTLEDASFWEQKMDFSHWPHVLPLEPGGCIDFQTENSSRHCLVTYRPD
KNHTTIRSVLMEMSYRLDDTGNPICSCQPVHTFFGGPTCKLLTKNAIFQSPENDGNILVCTGDEAANSALLWDAA
SGSLLQDLQTDQPVLDICPFEVNRNSYLATLTEKMHYKWE

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FIGURE 4590

ATGAACTTCACCACTCGCTCCACCTTCTCCACCAACTACC¹GGTCCCTGGGCTTTGTCCAGGCGCCCAGCTACAGT
GCCCCGGCCAGTCAGCAGCATGGCCAGCGTCTATGCAGGCACCAGGGGCTCTGGTTCCTGGATCTCCATGTCCCAC
TCCGCCAGCTTCTGGGGCGGCATGGGGTCTGGGGGCTGTCCGCGGGGATGGCTGGGGGTCTTGCAAGAATGGGA
GGCATCCAGAACAAGAAGGAGACCATGCAAAGCCTGAAGTACTGCCTGACCTCCTACCTGAACACAGTGAGGAAC
CTGGAGATGGAGA²ACTGGAAGCTAGAGAGCAAAATCCGGGAGCACCTGGAGAAGAAGGGACCCAGTTCAGAGAC
TGGAGCCGTTACTTCCAGACCATCAAGGACCTGAGGGCTCAGATCTTCGCAAATACTGTGGACAATGCCTGCATC
GTTCTGCAGATTGACAGTGCCCGTCTTGCAGCTGATGATTTTAGATCTGTGGAGAATGACATCCATGGGCTCTGC
AAGGTCATTGATGACACCAAGTGTCACTTGGCTGCAGCTGGAGACAGAGATCAAGGCTCGCAAGGAAGAGCTGCTC
TTCATGAAGAAGAACCACGGAGAGGAAGTAAAAGGCCTACAAGCCCAGATTGCCAGCTCTGGGTTGACCTTGGAG
GACCTCGCCAAGATCATGGCAGACATCTGGGCCCAATATGACAAGCTGGCTCGGAAGAACAGAGAGGAGCTGGAC
AAGTACTGGTCTCAGCAGATTGAGGAGAGCACCACGGTGGTCACCACGCAGTCCGTCAAGGTTGGAGCTGCTGAG
ACGACACTCACGGAGCTGAGATATACAGTCCAGTCCTTGGAGACTGACCTGGACTCAATGAGAAATCTGAAGGCC
AGCTTGGAGAACAGCCTGAGGGAGGTGGAGGCCCGCTACACCCTGCAGATGGAGCAGCTCAACGGGATCCTGCTT
TACCTGGAGTCAGAGCTGGCACAGACCCGGGCAGAGGGGTCTTCTTACTGATGTGTTGCTCTTCTTCATGGCTC
GTGAAA³ACTATTAGAGTCATCCAAGATTCTAAGTTCCTGACTCAGAAATCTTACTGTTGTGAACCTTTACACCCAG
GTTTGGAGACAGAAAGGAGCACCGCCAAGTGAGGCAGAGCAGTCTCAGAAACATAGGAAAATGGTGGGAAGAGAG
ATCAGCAACGTTAACTGGGTGTCAAGAAAACATACCGAGATTGAAGCCATCCACTTCTGCAGGAACACCGAAAAG
AAAGGTACAACGCTTGGGGAAAGACTGGATTTCATTAGGGACAGTGACAATACCTGTTTGACATAG

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FIGURE 4591

MNFTTRSTFSTNYRSLGFVQAPSYSARPVSSMASVYAGTRGSGSWISMSHSASFVGGMGSGGLSAGMAGGLARMG
GIQNKKETMQSLKYCLTSYLN TVRNLE MENWKLESKIREHLEKKGPQFRDWSRYFQTIKDLRAQIFANTVDNACI
VLQIDSARLAADDFRSVENDIHGLCKVIDDTSVIWLQLETEIKARKEELLFMKKNHGEEVKGLQAQIASSGLTLE
DLAKIMADIWAQYDKLARKNREELDKYWSQQIEESTTVVITQSVKVGAAETTLTELRYTVQSLETDLDSMRNLKA
SLENSLREVEARYTLQMEQLNGILLYLESELAQTRAEGSFLLMCCSSSWLVKTIIRVIQDSKFLTQNLTVVNLYTQ
VWRQKGAPPSEAEQSQKHRKMVGREISNVNWVSRKHTEIEAIFCRNTEKKGTTLGERLDFIRSDNTCLT

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FIGURE 4592A

ATAATGGCCGCTTTCAAGGTGTGGATTTTGGCTCCTTGAGCCTGTCTGAGCGAGGGGTGGCAGCGCCGGCGCCCC
AGAATCCGGGACAGAAGGGTCCCAAGAGTCGCGCTTGGTGAGAGAAATCCCAGATCCTGTGATGGGGGACACCAG
TGAGGATGCCTCGATCCATCGATTGGAAGGCACTGATCTGGACTGTCAGGTTGGTGGTCTTATTTGCAAGTCCAA
AAGTGCGGCCAGCGAGCAGCATGTCTTCAAGGCTCCTGCTCCCCGCCCTTCATTACTGGGACTGGACTTGCTGGC
TTCCCTGAAACGGAGAGAGCGAGAGGAGAAGGACGATGGGGAGGACAAGAAGAAGTCCAAAGTCTCCTCTACAA
GGACTGGGAAGAGAGCAAGGATGACCAGAAGGATGCTGAGGAAGAGGGCGGTGACCAGGCTGGCCAAAATATCCG
GAAAGACAGACATTATCGGTCTGCTCGGGTAGAGACTCCATCCCATCCGGGTGGTGTGAGCGAAGAGTTTTGGGA
ACGCAGTCGGCAGAGAGAGCGGGAGCGGAGGGAACATGGTGTCTATGCCTCGTCCAAAGAAGAAAAGGATTGGAA
GAAGGAGAAATCGCGGGATCGAGACTATGACCGCAAGAGGGACAGAGATGAGCGGGATAGAAGTAGGCACAGCAG
CAGATCAGAGCGAGATGGAGGGTCAGAGCGTAGCAGCAGAAGAAATGAACCCGAGAGCCACGACATCGACCTAA
AGATGCAGCCACCCCTTCAAGGTCTACCTGGGAGGAAGAGGACAGTGGCTATGGCTCCTCAAGGCGCTCACAGTG
GGAATCGCCCTCCCCGACGCCCTTCTATCGGGATTCTGAGCGGAGCCATCGGCTGTCCACTCGAGATCGAGACAG
GTCGTGTAGGGGCAAGTACTCGGATGACACGCCCTCTGCCAACTCCCTCTACAAATATAACGAGTGGGCCGATGA
CAGAAGACACTTGGGGTCCACCCCGCGTCTGTCCAGGGGCGGAGGAAGACGTGAGGAGGGCGAAGAAGGAATTTT
ATTGACACGGAGGAGGAGCGGCAGCAGTGGGAAGATGACCAGAGGCAAGCCGATCGGGATTGGTACATGATGGA
CGAGGGCTATGACGAGTTCCACAACCCGCTGGCCTACTCCTCCGAGGACTACGTGAGGAGGCGGGAGCAGCACCT
GCATAAACAGAAGCAGAAGCGCATTTCAGCTCAGCGGAGACAGATCAATGAGGATAACGAGCGCTGGGAGACAAA
CCGCATGCTCACCAGTGGGGTGGTCCATCGGCTGGAGGTGGATGAGGACTTTGAAGAGGACAACGCGGCCAAGGT
GCATCTGATGGTGCACAATCTGGTGCCCTCCCTTTCTGGATGGGCGCATTTGTCTTACCAAGCAGCCGGAGCCGGT
GATTCAGTGAAGGATGCCACTTCTGACCTGGCCATCATTGCTCGGAAAGGCAGCCAGACAGTGGCGAAGCACAG
GGAGCAGAAGGAGCGCAAGAAGGCTCAGCACAAACACTGGGAACCTGGCGGGACCAAACCTGGGAGATATAATGGG
CGTCAAGAAGGAGGAAGAGCCAGATAAAGCTGTGACGGAGGATGGGAAGGTGGACTACAGGACAGAGCAGAAGTT
TGCAGATCATGTAAGAGAAAAGCGAAGCCAGCAGTGAATTTGCAAAGAAGAAGTCCATCCTGGAGCAGAGGCA
GTACCTGCCCATCTTTGCAGTGCAGCAGGAGCTGCTCACTATTATCAGAGACAACAGCATCGTGATCGTGGTTGG
GGAGACGGGGAGTGGTAAGACCACTCAGCTGACGCAGTACCTGCATGAAGATGGTTACACGGACTATGGGATGAT
TGGGTGTACCCAGCCCCGGCGTGTAGCTGCCATGTCAGTGGCCAAGAGAGTCAGTGAAGAGATGGGGGAAACCT
TGGCGAGGAGGTGGGCTATGCCATCCGCTTTGAAGACTGCACCTCAGAGAACACCTTGATCAAATACATGACTGA
CGGGATCCTGCTCCGAGAGTCCCTCCGGGAAGCCGACCTGGATCACTACAGTGCCATCATCATGGACGAGGCCCA
CGAGCGCTCCCTCAACACTGACGTGCTCTTTGGGCTGCTCCGGGAGGTAGTGGCTCGGCGCTCAGACCTGAAGCT
CATCGTCACATCAGCCACGATGGATGCGGAGAAGTTTGTCTGCCCTTTTTGGGAATGTCCCATCTTCCACATCCC
TGGCCGTACCTTCCCTGTGACATCCTCTTCAGACAAGACCCACAGGAGGATTACGTGGAGGATGCAGTGAAGCA
GTCCTTGCAAGTGCACCTGTGCGGGGCCCCCTGGAGACATCCTTATCTTCATGCCTGGCCAAAGAGGACATTGAGGT
GACCTCAGACCAGATTGTGGAGCATCTGGAGGAACCTGGAGAACGCGCCTGCCCTGGCTGTGCTGCCATCTACTC
TCAGCTGCCCTTCTGACCTCCAGGCCAAAATCTTCCAGAAGGCTCCAGATGGCGTTTCGGAAGTGCATCGTTGCCAC
CAATATTGCCGAGACGTCTCTCACTGTTGACGGCATCATGTTTGTATTCGATTCTGGTTATTGCAAAATTAAGGT
CTTCAACCCAGGATTGGCATGGATGCTCTGCAGATCTATCCCATTAGCCAGGCCAATGCCAACCAGCGGTCAGG
GCGAGCCGGCAGGACGGGCCCAGGTCAGTGTTCAGGCTCTACACCCAGAGCGCCTACAAGAATGAGCTCCTGAC
CACCACAGTGCCCGAGATCCAGAGGACTAACCTGGCCAACGTGGTGCTGCTGCTCAAGTCCCTCGGGGTGCAGGA
CCTGCTGCAGTTCCACTTCATGGACCCGCCCCGGAGGACAACATGCTCAACTCTATGTATCAGCTCTGGATCCT
CGGGGCCCTGGACAACACAGGTGGTCTGACCTCTACCGGGCGGCTGATGGTGGAGTTCGCGCTGGACCCCTGCCCT
GTCCAAGATGCTCATCGTGTCTGTGACATGGGCTGCAGCTCCGAGATCCTGCTCATCGTTTCCATGCTCTCGGT
CCCAGCCATCTTCTACAGGCCCAAGGGTCGAGAGGAGGAGAGTGATCAAATCCGGGAGAAGTTCGCTGTTCTGTA
GAGCGATCATTTGACCTACCTGAATGTTTACCTGCAGTGGAGAACAATAATTACTCCACCATCTGGTGTAAACGA
TCATTTCAATCCATGCTAAGGCCATGCGGAAGGTCCGGGAGGTGCGAGCTCAACTCAAGGACATCATGGTGCAGCA
GCGGATGAGCCTGGCCTCGTGTGGCACTGACTGGGACATCGTCAGGAAGTGCATCTGTGCTGCCTATTTCCACCA
AGCAGCCAAGCTCAAAGGAATCGGGGAGTACGTGAACATCCGCACAGGGATGCCCTGCCACTTGCACCCACCAG
CTCCCTTTTTGGAAATGGGCTACACCCAGATTACATAGTGTATCACGAGTTGGTCATGACCACCAAGGAGTATAT
GCAGTGTGTGACCGCTGTGGACGGGGAGTGGCTGGCGGAGCTGGGCCCCATGTTCTATAGCGTGAAACAGGCGGG

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FIGURE 4592B

CAAGTCACGGCAGGAGAACCGTCGTC'GGGCCAAAGAGGAAGCCTCTGCCATGGAGGAGGAGATGGCGCTGGCCGA
GGAGCAGCTGCGAGCCCGGCGGCAGGAGCAGGAGAAGCGCAGCCCCCTGGGCAGTGTCTAGGTCTACGAAGATCTA
CACTCCAGGCCGGAAGAGCAAGGGGAGCCCATGACCCCTCGCCGCACGCCAGCCCGCTTTGGTCTGTAGCTGA
GGCTGTCCCCAGAGAGGATGGCAGCAGGTATTGGGTCTCAGCCTTCTGGCGGGAGCCCTGAGGCTGCGGACAAA
GCCCTTTTCATCTGAGGACTTTTCATCTGTGCATATCACGGCCCCCAGGGCAGTTCTTGCTGGACCAGACTCTCTG
GCAGAGGAGGTGGAGTTCTTCCATGCAGGAGCACGGCATGGCGGGAGCGGGGCTGCAGAGTATCCGAGGTGCTGC
CGGGGCAGCGGGAGGTGGCTGGACCCATCGCATCTAAACTGGCCCAGGACACTTGGTGTATGCGTGACTTGGCT
GTGGCTGTCTTTTTTAATCCTTGTGTAAAGCAGCAAAAAAGACCTAAAGGGAATTGTAATTGGTTATAATTCAG
GATTTGGAATAAATTTATTATTTGTAAACAAAAAAAAAAAAAAAAAAAAA

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FIGURE 4593

MGDTSEDASIHRLGTDLDCQVGGLICKSKSAASEQHVFKAPAPRPSLLGLDLLASLKRREREKDDGEDKKKSK
VSSYKDWEESKDDQKDAEEEGGDQAGQNIRKDRHYRSARVETPSHPGGVSEEFWERSRQRERERREHGVYASSKE
EKDWKKEKSRDRDYDRKDRDERDRSRHSSRSERDGGSESSRRNEPESPRHRPKDAATPSRSTWEEEDSGYGSS
RRSQWESPSPTPSYRDSERSHRLSTRDRDRSVRGKYSDDTLPPTPSYKYNEWADDRRLHGSTPRLSRGRGRREEG
EEGISFDTEERQWEDDQRQADRDWYMMDEGYDEFHNPLAYSSEDYVRRREQHLHKQKQKRI SAQRRQINEDNE
RWETNRMLTSGVVHRLVDEDEFEEDNAAKVHLMVHNLVPPFLDGRIVFTKQPEPVI PVKDATSDLAI IARKGSQT
VRKHREQKERKKAQHKKHWELAGTKLGDIMGVKEEEEPDKAVTEDGKVDYRTEQKFADHMKRKSEASSEFAKKKSI
LEQRQYLP IFAVQQELLTIIRDNSIVIVGETGSGKTTQLTQYLHEDGYTDYGMIGCTQPRRVAAMSVAKRVSEE
MGGNLGEEVGYAIRFEDCTSENTLIK YMTDGILLRESLREADLDHYSAIIMDEAHERSLNTDVLFGLLREVVAR
SDLKLI VTSATMDAEKFAAFFGNVPIFHIPGRTPVDILFSKTPQEDYVEAAVKQSLQVHLSGAPGDILIFMPGQ
EDIEVTS DQIVEHLEEL ENAPALAVLP IYSQLPSDLQAKIFQKAPDGVRKCI VATNIAETSLTVDGIMFVIDSGY
CKLKVFNPRI GMDALQIYPISQANANQSRGAGRTGPGQCFRLYTQSAYKNELLTTTVP EIQRTNLANVVLLLS
LGVQDLLQFHMDPPPEDNMLNSMYQLWILGALDNTGGLTSTGRMLVEFPLDPALSKMLIVSCDMGCSSEILLIV
SMLSVPAIF YRPKGREESDQIREKFVPESDHLTYLNVYLQWKNNYSTIWCNDHFIHAKAMRKVREVRAQLKD
IMVQQRMSLASC GTDWDIVRKCI CAAYFHQA AKLKGIG EYVNIRTGMPCHLHPTSSLFGMGYTPDYIVYHELVMT
TKEYMQCVTA VDGEWLAELGPMFYSVKQAGKSRQENRRRAKEEASAMEEEMALAEELRARRQE QEKRSPLG SVR
STKIYTPGRKEQGEPMTPRRTPARFGL

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ATTGGGCTGTTGAGCGGGGGCCGACCGACGGCCAGGAGTTTCTTTTCTGCGCTTGTCGCTTTTCTGTTCCGGTTTC
CTTCCCGCTAGCGGGGCCACGAGGGTTGCTAGGCAACAGCCCTGGGTGACTTGGTCTTAGGGTCTGTCCGGCT
TGGGGCTGATGAAAGGAGCTGTCCGCGCCCGGGCTCTTCCGAGAAGTGGTTGCTGACAGCCACAAAGTGAAAGGG
AGTGAGGCGGCGTGGACGAGTAAGGAGTGACAGTGAGGATTACATTTGGGTTATTTCAGATGAGCTTCCTACT
GCCCAAGCTGACTAGCAAAAAGGAAGTAGACCAGGCGATAAAAAGTACTGCTGAGAAGGTGTTGGTTCTCAGGTT
TGGGAGAGATGAAGATCCTGTCTGTCTGCAGCTAGATGATATTCTTTCTAAGACCTCTTCTGACTTAAGTAAAAA
GGCTGCTATATACCTGGTGGATGTGGACCAAACGTCAGTTTATACACAGTATTTTGACATCAGTTATATTTCCATC
TACTGTCTTTTTCTTCAATGGGCAGCATATGAAAGTGGATTATGGATCTCCAGATCACACTAAGTTTGTGGGAAG
CTTCAAAACCAACAAGACTTCATAGATTTGATTGAAGTAATCTATCGAGGAGCAATGAGGGGGAAGCTTATTGT
CCAAAGTCCTATTGATCCCAAGAATATTCCCAAATATGACCTTCTCTATCAAGACATTAGTACATTAATTGCTG
TCAAAGATGAAGAAGAAGGCACATCTTGACACAGTACCTGAATCCAGCTGTGCTGTGTTTCTGGAGTCCTTTGGA
AACATGTGTCCAGAGGAGAAGAGGTTTGACTTGCGTGTAGAAAACCCGGCCCTGAGGAAAAGACCCCACTGGT
TCTCTGATGACCTGGGATGCCAAGTGTCTACTCCCTGCAAGCCTCAGAGCAGCCAAGTCATTGGTGTTCATTTT
CCCCACAGTGATTTTTGTAACTTCTCTTTCTAATGTTTTTCTTTATCCCTTTAATACAGAACCCCTCCCAAACATT
GGCTAGTACAACCTGATTTTCATCATGTTTCAATTTGATACACAAGTGAACGAAAGTCACTTCCCATAGAAGCAAA
AGTACTTATTTTCTACCCTAGCTGGGTGCATGTGTGTGCACACACACACACACACACACCCCCACACCCCTTTGC
CGGTTCTCTGACTCATACATCCCTCGTGCTTTCCCATCTCCAGTCTGTATTACTGTAGGTTCTCTTCAAATAATT
AATTGAGCAGACAAGTTTGTTTTATTTTGGAGCCTTTTGGCTCTGGCTTTTAAACATTGTCTGGTTGGCTCAT
TTAATTTTTTTTTTTTTTTTTTGGAGCCGAGTCACTCTTGTCAACCCAGGCTGGAGTGCAGTGGCGCGATCTCGGCTC
ACTGCAAGCTCCACCTCCTGGGTTCAIGCCATTCTCCTGCTTCAGCCTCCTGAGTAGCTGGGACTACAGGCGCCC
GCCACCATGCCCAGCTAATTTTTTGTATTTTTATAGAGGCGCAGTTTACCCTGTTAGCCAAGATGGTCTCGATC
TCTTGACCTCGTGATCTGCCCTCCTCAGCCTCCCAGGTGCTGGGATTATAGGCGTGAGCCACCGCGCGCACCCCA
TTTAATTATTTTTTATGTTATAAAATTTAATATGGAAGTGAGAATTTGAACCTTACCATCCACCACTCTATTC
AGGTAACAACATGAATGAGCCACCTTAGCAGGAGCAGATTTTTCCAGAAGCTGCTGCCTCTTCTGAGGCAGAA
AATTGGATTACATAAGGCTCAAAACTAAAAGAGATGTCAGCATTGTTGGATAGAAATGTCACCTATATGGGATTG
CTGTTTTTAATAACTTTGTAAAGGAATTTCTGTCTTCTAGGGGTGCCTGGCGCAACCGTGGGCAAGTTACTGCTC
CTCTTTAAACCTCGTGGTGGTTATTGAACAGATTATTAGAAGGAGAGGGTAGGTGCAGAGCTGGAGAGCCATG
GGTGAGGCAGCTTGTGACCTGCCTAGCAGCGCTGACCACCTTCCAACAGAAGCCTAGTCTGTTTCAAGAGAGGAG
ACTGTCACCTGCAAGTCCAGCCCCCTTTGCCAGGGGCTCCATTCCACCCCTTCTCTGAGGAGGGGTGCCATGGA
TCTTGCTTTTGGCTCATACAGGAGAGAGGGAAGGCTGCCAGGCACCTGCTTGTATCTCTGCTGATAAGAGAGGAG
GTCACTCCAGGAAATAAGACAAAAGGAGAGGAGGAGGCCATCACCTCTGGCCTCTTCCATCGTACACTTCTGTCT
CTGGTTTAATCATGATGCATGGAGCTACAACAGCCATCTTAGGTCCCCGAGGTGCCAGCATCACGTAAAAATC
GATATGCTAAGAAGAACAAGAGGCCAATCTCTGATGTTATTGAGCTCCTGCATGAACCTCTGGACCTGCCTGC
CTCAGACTTCTGTGAAAGAATAAAATTTCTTTTTGCCTAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 4595

MSFLLPKLTSKKEVDQAIKSTA EKVLVLRFG RDEDPVCLQLDDILSKTSSDLSKMAAIYLV DVDQTAVYTQYFDI
SYIPSTVFFFNGQHMKV DYGSPDHTK FVG SFKTKQDFIDLIEVIYRGAMRGKLIVQSPIDPKNIPKYD LLYQDI

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FIGURE 4596

CTCTTCCAGAGGCAAGACCAACCAAGATGAGTGCCCTGGGAGCTGTCATTGCCCTCCTGCTCTGGGGACAGCTTT
TTGCAGTGGAAGCTCAGGCAATGATGTCACGGATATCGCAGATGACGGCTGCCCGAAGCCCCCGAGATTGCACATG
GCTATGTGGAGCACTCGGTTTCGCTACCAAGTGTAAAGAACTACTACAAACTGCGCACAGAAGGAGATGGAGTATACA
CCTTAAATGATAAGAAGCAGTGGATAAATAAGGCTGTTGGAGATAAACTTCCTGAATGTGAAGCAGATGACGGCT
GCCCCAAGCCCCCGAGATTGCACATGGCTATGTGGAGCACTCGGTTTCGCTACCAAGTGTAAAGAACTACTACAAAC
TGGCACAGAAGGAGATGGAGTGTACACCTTAAACAATGAGAAGCAGTGGATAAATAAGGCTGTTGGAGATAAAC
TTCCTGAATGTGAAGCAGTATGTGGGAAGCCCCAAGAATCCGGCAAACCCAGTGCAGCGGATCCTGGGTGGACACC
TGGATGCCAAAGGCAGCTTTCCCTGGCAGGCTAAGATGGTTTCCCAACATAATCTCACCACAGGTGCCACGCTGA
TCAATGAACAATGGCTGCTGACCACGGCTAAAAATCTCTTCCCTGAACCATTCAGAAAATGCAACAGCGAAAGACA
TTGCCCCTACTTTAAACTCTATGTGGGGAAAAAGCAGCTTGTAGAGATTGAGAAGGTTGTTCTACACCCTAACT
ACTCCCAGGTAGATATTGGGCTCATCAAACTCAAACAGAAGGTGTCTGTTAATGAGAGAGTGATGCCCATCTGCC
TACCTTCAAAGGATTATGCAGAAGTAGGGCGTGTGGGTATGTTTCTGGCTGGGGGCGAAATGCCAATTTTAAAT
TTACTGACCATCTGAAGTATGTCATGCTGCCTGTGGCTGACCAAGACCAATGCATAAGGCATTATGAAGGCAGCA
CAGTCCCCGAAAAGAAGACACCGAAGAGCCCTGTAGGGGTGCAGCCCATACTGAATGAACACACCTTCTGTGCTG
GCATGTCTAAGTACCAAGAAGACACCTGCTATGGCGATGCGGGCAGTGCCTTTGCCGTTACGACCTGGAGGAGG
ACACCTGGTATGCGACTGGGATCTTAAGCTTTGATAAGAGCTGTGCTGTGGCTGAGTATGGTGTGTATGTGAAGG
TGACTTCCATCCAGGACTGGGTTCAGAAGACCATAGCTGAGAACTAATGCAAGGCTGGCCGGAAGCCCTTGCTG
AAAGCAAGATTTTCAAGCTGGAAGAGGGCAAAGTGACGGGAGTGGACAGGAGTGGATGCGATAAGATGTGGTTTG
AAGCTGATGGGTGCCAGCCCTGCATTGCTGAGTCAATCAATAAAGAGCTTTCTTTTGACCCA

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FIGURE 4597

ATGCTGTCTGTGTGTGTCTCCGCGGCCGTAGCCCGTGACCTCACTCGTAAGGAAGGAGGTATAGTGAAGAGGACA
GGAACCATTTGTGGACGTTCCAGTCGGTGAGGAGCTGTTGGGTCGTGTAGTTGATGCCCTTGGTAATGCTATTGAT
GGAAAGGGTCCAATGGGTTCCAAGACCCATAAAATCATTCCTCGAACTTCAGTGTGGGAACCAATGCCGACTGGC
ATTAAGGCTGTGGATAGCTTGGTGCCAATTGGTCGTGGTCAGCATGAGCTCATTATTGGTGACCGAAGGACTGGG
AAAACCTCAATTGCTATTGACACAATCATTAAACCAGAAACATTTCAATGATAGATCTGAAGAAAAGAAGAAGCTG
TACTGTATCTATGTTGCTATTGGTCGAAAGAGATCCACTGTTGCTCAGTTGGTGAAGAGACTTACAGATGCAGAT
GCCGTGAAGTACACCACTGTGGTGTGAGCTATGGCCTCAGATGCTGCCCTACTTCAGTACCTGGCTCCTTACTCT
GACTGTTCCATGGGAGAGTATTTTAGAGACGATGGCAAAATATACTTTGATCATCTATGACGACTTATCCAAACAG
GCTGTCGCTTACTGTCAGATGTCTCTGTTGCTCCACCGACCCCCCTGGTCGACTATGAAGCAGGCGGCAGGTACC
ATGAAGCTGGAATTGGCTCAGGATCGTGAGGTTGCTGCTTTTGCCAGTTTGGTTCTGACCTCAATGCTCCCACT
CAACAACATTTGAGTCGCGGTGTGCGTCTAACTGAGTTGCTGAAGCAAGGACAGTATCCTCCCATGGTTACTGAA
CAACAAGTGGCTGTTATCTGTGCGGGTGGAGAGAATATAGAGGACATTCCAAAGGAAGTGCTGACAGACTGCGCC
CACCTTGTGAAGGCCAATAGCACTCAAGGCTGCAAGAACAACGTTAATGTGGTAAATACTCCACGGTCTAACCTG
AAGAAAACAGCTGACGTGGATGTGAGGCAGATAGGCTTTCACAGGCAGAAGGATGTAAAAATTGTGACAATGGAG
AAGAAAAGAGGATTCCTAGCTCATATTTGGAACAAGGAAGTTCAAGATCTCATCCGGGACTATCTGGAAGAAGGA
AAGAAGTGGTGGATTGGGCAAAATGTAATGCCATTGAAAAAGCATCAAGACAACAAATACCCAGCAGACGTTGCA
GCCAACGGGCCCCCAAAGCCCCCTCAGCTGCACCTACCTGTCCAGAACTTCATTCCGGATCTCATCCAAAGGGGAC
AAGTGCTTACTGAAATACTATTTTCAATTTGCCAGACTGGTGACTTTTGGACGGAGATGCCCATTTGAAAGAAAT
GGAAATAATTCCCATTTGTACCAGAGACACAAGAAGACAAAAAGAGGAGTTGCAATAGCAAGAGACAAAATGCCC
CCAGACTTTCAGGATCATGTGATTCTGGCCAAGAAATAAAAGCAAAATCATTTTATTCCCCAGTGGATTCCGGAT
GAAACCGGTGATAAAATCAGGTACAACCTCCAAGAGGAGACACTGGAGAACAGGCATGCTGGGTCTGTTAA

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FIGURE 4598

MLSVCVSAAVARDLTRKEGGIVKRTGTIVDVPVGEELLGRVVDALGNAIDGKGPMGSKTHKIIPRTSVWEPMP
IKAVDSLVPIGRGQHELIIGDRRTGKTSIAIDTIINQKHFNRSEEKKLYCIYVAIGRKRSTVAQLVKRLTDAD
AVKYTTVVSAMASDAALLQYLAPYSDCSMGEYFRDDGKYTLIIYDDLKQAVAYCQMSLLLHRPPWSTMKQAAGT
MKLELAQDREVAFAAQFGSDLNAPTQQLLSRGVRLTELLKQGQYPPMVTEQQVAVICAGGENIEDIPKEVLTDC
HLVKANSTQGCKNNVNVVNTPRS NLKKTADV DVRQIGFHRQKDVKI VTM EKKRGFLAHIWNKEVQDLIRDYLEEG
KKWWIGQNV MPLKKHQDNKYPADVAANGPPKPLSCTYLSRNFIRISSKGDKLLKYYFICQTGDFLDGDAHYERN
GNNSHLYQRHKKTKRGVAIARDKMPPDFQDHVIPGQEIKA KSFYSPVDSDETGDKIRYNSKRRHWRTGMLGL

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FIGURE 4599

CTGTGGCTGGCCTCCCCGCGCCAGAGCGAAATTAAGGGCATGCCCCAGCAGCTGACTCAGTCGGCGTGGCGCT
TCCCCCAACGTCTGCCGTGCCCCGCGCGGGAAGTAGTCCCCGGCCGCGCCGACTCCAAAGGAAACCGAGGGAG
GGTGCCCCGAGTCAGCGCGTGGGTCCCGGCAGCGGCGATCGCGCAGCCAATCCCTGGAAAGGAGGGCGTGGCTAT
ATCGGCCCCGTGGATCCCTCCGCCCCGCGCTTGTTGIGCTGAGGCCGAGGGAGTCGCCATTTTGGATGGTGAACCC
TGAAGTCGGTGTCTGCTGCGTTACGGCAGGATTTCGGTTAGGAGGAACAGCACAGCATGCTGGGCTCTGGATTTA
AAGCTGAGCGCTTAAGAGTGAATTTGAGATTAGTCATAAATCGCCTTAAACTATTGGAGAAAAAGAAAACGGAAC
TGGCCAGAAAGCAAGGAAGGAGATTGCTGACTATCTGGCTGCTGGGAAAGATGAACGAGCTCGGATCCGTGTGG
AGCACATTATCCGGGAAGACTACCTCGTGGAGGCCATGGAGATCCTGGAGCTGTACTGTGACCTGCTGCTGGGCTC
GGTTTGGCCTTATCCAGTCTATGAAGGAAGTAGATTCTGGTCTGGCTGAATCTGTGTCTACATTGATCTGGGCTG
CTCCTCGACTCCAGTCAGAAGTGGCTGAGTTGAAAATAGTTGCTGATCAGCTCTGTGCCAAGTATAGCAAGGAAT
ATGGCAAGCTATGTAGGACCAACCAGATTGGAAGTGTGAATGACAGGCTAATGCACAAGCTGAGTGTGGAAGCCC
CACCCAAAATCCTGGTGGAGAGATACCTGATTGAAATTGCAAAGAATTACAACGTACCCTATGAACCTGACTCTG
TGGTCATGGCAGAAGCTCCTCCTGGGGTAGAGACAGATCTTATTGATGTTGGATTACAGATGATGTGAAGAAAG
GAGGCCCTGGAAGAGGAGGGAGTGGTGGCTTCACAGCACCAGTTGGTGGACCTGATGGAACGGTGGCAATGCCCCA
TGCCCATGCCCATGCCTATGCCATCTGCAAATACGCCTTTCTCATATCCACTGCCAAAGGGACCAGTAGATGACA
TTAATGCTGATAAGAATATCTCTTCTGCACAGATTGTTGGTCTCGGACCCAAGCCAGAAGCCTCTGCAAAGCTTC
CTTCAGACCTGCAGATAACTATGACAACTTTGTCTTACCAGAGTTGCCATCTGTGCCAGACACACTACCAACTG
CATCTGCTGGTGCCAGCACCTCAGCATCTGAAGACATTGACTTTGATGATCTTTCCCGGAGGTTTGAAGAGCTGA
AAAAGAAAACATAGGTCTCTTAAACCAGGCAACTTTACGTTTTGGGAGTTGAGACTGAGCAATTTCTCCTTGTA
ACAAAGAATCTCCATGAAATTCTGTTTCATCTGTTAACCGTCACTCAGCACAACTCCCTCTGGGCTCTCTTCC
TGCTCCTCCAGATTCTGCTGCTTTCCAGTTCTCTGTTGATCCTGAGACTAACAATTGGAGACTGAGGCCAGAGCA
ACTGGCTCCTGGCAGCTGTGCTTGTCCGTTTCTGTGAGAGTGATCCAGGTTTCTCCTGGCCCCGTCCCATGGT
CCCTCCACAGGAGTGTGAGAGGATGGGGGAAGCACTGTGGGAAGACCACCAAAGATGGCTGGACAGTGGGAGAGA
GCACGTTGTGAAGCATCCAGCCTCGTGTGAGGTTCCAGACTTAGAAACAGACCCCTCTGTACAGGGGGATTGT
GGTGAGTGAGAATCAAGGCCACCTTGTGTGTTTTCTCACTCTCGAATGCAAGTGGGAGAGGGAAAATGACTCGGG
ACGCCATTGTAACGGTTCTGGAAGCTGGGCCCTCTCATTGGCATATACAGTACTCCTCGCTGCAGGGCACTGTC
CCACCGGGATCCAGTTGCAAAGTTTGTCTTGACAGTTGAAGGCTCGCTTAGTTGTACTGGATTCTCAGGGAGCC
CTCTGTGGCCTTTTGTCTTGTGCTGCTTTCCCTTGTACCAGAGGGCGGCACCGTGGAATTTCTGTTTTCCCTGT
AGCATATTGTGTTGGATTGCATTACTGGCAGAGAAAGGACAAGGTGCCATTCAAGTCTAGGGTGGGCTTCCAGC
TGCCTTAATAGAAGTACTCAAGTCTTTTGGGTAGTGAGCTGGAAAGCCTACAGGAAAAGAGGGGTACCTGTTTTT
ATTTGAAAACTTTGATTGATGGAACCTTTAAACTAATCTCAGAAAAATTTTTGGTGCCCATGCAGCTGTAGTTG
TTCACTGCTTTCTGGATGGATGGGACTCTTATGTCATAACTTCTGTTACTCCTTTGGCCCATAGCTAAGGTCAT
CCTTCCCCACAGGGGTGGCTTTGGGATTGGATGATACAGCTTTTGTCTCTGTGTAGTATACCTGTACATACTTGT
TTCAGGCAGCCTTTCTTTAATGTTTTAGTTGGTTTGTATTCTGTAGCTCAGTAGCTGCTAATAAAGTTAAAGAT
CCTGTG

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FIGURE 4600A

CGGCGCTGAGTGACCCGAGTCGGGACGCGGGCTGCGCGCGCGGGACCCCGAGCCCAAACCCGGGGCAGGCGGGC
AGCTGTGCCCGGGCGGCACGGCCAGCTTCTCTGATTCTCCCGATTCTTCTCTCTCTGAGCGGGCCGACAATG

TCCACCACGGTCAATGTAGATTCCCTTGCGGAATATGAGAAGAGCCAGATCAAGAGAGCCCTGGAGCTGGGGACG
GTGATGACTGTGTTACAGCTTCCGCAAGTCCACCCCCGAGCGGAGAACCGTCCAGGTGATCATGGAGACGCGGCAG
GTGGCCTGGAGCAAGACCGCTGACAAGATCGAGGGCTTCTTGGATATCATGGAAATAAAAGAAATCCGCCCAGGG
AAGAACTCCAAAGATTTCGAGCGAGCAAAAGCAGTTCGCCAGAAAGAAGACTGCTGCTTACCATCCTATATGGC
ACTCAGTTCGTCTCAGCACGCTCAGCTTGGCAGCTGACTCTAAAGAGGATGCAGTTAACTGGCTCTCTGGCTTG
AAAATCTTACACCAGGAAGCGATGAATGCGTCCACGCCCACCATTATCGAGAGTTGGCTGAGAAAGCAGATATAT
TCTGTGGATCAAACCAGAAAGAACAGCATCAGTCTCCGAGAGTTGAAGACCATCTTGCCCCCTGATCAACTTTAA
GTGAGCAGTGCCAAGTTCTTAAAGATAAGTTTGTGGAAATAGGAGCACACAAAGATGAGCTCAGCTTTGAACAG
TTCCATCTCTTCTATAAAAACTTATGTTTGAACAGCAAAAATCGATTCTCGATGAATTCAAAAAGGATTTCGTCC
GTGTTTCATCTGGGGAACACTGACAGGCCGGATGCCCTCTGCTGTTTACCTGCATGACTTCCAGAGGTTTCTCATA
CATGAACAGCAGGAGCATTTGGGCTCAGGATCTGAACAAAGTCCGTGAGCGGATGACAAAGTTCATTGATGACACC
ATGCGTGAAACTGCTGAGCCTTCTTGTGTTGTGGATGAGTTCTCACGTACCTGTTTTCACGAGAAAACAGCATC
TGGGATGAGAAGTATGACGCGGTGGACATGCAGGACATGAACAACCCCTGTCTCATTACTGGATCTCCTCGTCA
CATAACACGTACCTTACAGGTGACCAGCTGCGGAGCGAGTCTGTCGCCAGAGCTTACATCCGCTGCCTGCGCATG
GGCTGTGCTGCATTGAAGTGGACTGCTGGGACGGGCCGATGGGAAGCCGTCATCTACCATGGCTGGACGCGG
ACTACCAAGATCAAGTTTGACGACGTCGTGCAGGCCATCAAAGACCACGCCTTGTGTACCTCGAGCTTCCAGTG
ATCCTGTCCATCGAGGAGCACTGCAGCGTGGAGCAACAGCGTCACATGGCCAAGGCCTTCAAGGAAGTATTTGGC
GACCTGCTGTTGACGAAGCCACGGAGGCCAGTGTGACCAGCTGCCCTCGCCAGCCAGCTGCGGGGAGAAGATC
ATCATATGACATAAGAAGCTGGGCCCCCGAGGCCGATGTGGATGTCAACATGGAGGACAAGAAGGACGACACAAG
CAACAGGGGGAGCTGTACATGTGGGATTCCATTGACCAGAAATGGACTCGGCACTACTGCGCCATTGCCGATGCC
AAGCTGTCTTTCAGTGATGACATTGAACAGACTATGGAGGAGGAAGTGCCCCAGGATATACCCCTACAGAATA
CATTTTGGGGAGAAATGGTTCCACAAGAAGGTGGAGAAGGAGCAGAGTGCCGAGAAGTTGCTGCAGGAATACTGC
ATGGAGACGGGGGGCAAGGATGGCACCTTCTGTTTGGGAGAGCGAGACCTTCCCCAATGACTACACCCTGTCC
TTCTGGCGGTACAGGCCGGGTCCAGCACTGCCGGATCCGCTCCACCATGGAGGGCGGGACCCTGAAATACTACTTG
ACTGACAACCTCACCTTCAGCAGCATCTATGCCCTCATCCAGCACTACCGCGAGACGCACCTGCGCTGCGCCGAG
TTCGAGCTGCGGCTCACGGACCCTGTGCCCAACCCCAACCCCCACGAGTCCAAGCCGTGGTACTATGACAGCCTG
AGCCGCGGAGAGGCAGAGGACATGCTGATGAGGATTCCCCGGGACGGGGCCTTCTGATCCGGAAGCGAGAGGGG
AGCGACTCCTATGCCATCACCTTCAGGGCTAGGGGCAAGGTAAAGCATTGTGCGCATCAACCGGGACGGCCGGCAC
TTTGTGCTGGGGACCTCCGCTATTTTGAGAGTCTGGTGGAGCTCGTCAGTTACTACGAGAAGCATTCACTCTAC
CGAAAGATGAGACTGCGCTACCCCGTGACCCCGAGCTCCTGGAGCGCTACAATATGGAAAGAGATATAAACTCC
CTCTACGACGTCAGCAGAATGTATGTGGATCCAGTGAAATCAATCCGTCCATGCCTCAGAGAACCCTGAAAGCT
CTGTATGACTACAAAGCCAAGCGAAGCGATGAGCTGAGCTTCTGCCGTGGTGCCCTCATCCACAATGTCTCCAAG
GAGCCCGGGGGCTGGTGGAAAGGAGACTATGGAACCAGGATCCAGCAGTACTTCCCATCCAACCTACGTCGAGGAC
ATCTCAACTGCAGACTTCGAGGAGCTAGAAAAGCAGATTATTGAAGACAATCCCTTAGGGTCTCTTTGCAGAGGA
ATATTGGACCTCAATACCTATAACGTCGTGAAAGCCCTCAGGGAAAAAACAGAGTCCCTTGTCTTTCATCCTG
GAGCCCAAGCAGCAGGGCGATCCTCCGGTGGAGTTTGGCACAGACAGGGTGGAGGAGCTCTTTGAGTGGTTTCAG
AGCATCCGAGAGATCACCTGGAAGATTGACACCAAGGAGAACACATGAAGTACTGGGAGAAGAACCAGTCCATC
GCCATCGAGCTCTCTGACCTGGTTGTCTACTGCAAACCAACCAGCAAAACCAAGGACAACCTAGAAAATCCTGAC
TTCCGAGAAATCCGCTCCTTTGTGGAGACGAAGGCTGACAGCATCATCAGACAGAAGCCCGTCGACCTCCTGAAG
TACAATCAAAGGGCCTGACCCGCGTCTACCCAAAGGGACAAAGAGTTGACTCTTCAAACCTACGACCCCTTCCGC
CTCTGGCTGTGCGGTTCTCAGATGGTGGCACTCAATTTCCAGACGGCAGATAAGTACATGCAGATGAATCACGCA
TTGTTTTCTCTCAATGGGCGCACGGGCTACGTTCTGCAGCCTGAGAGCATGAGGACAGAGAAATATGACCCGATG
CCACCCGAGTCCCAGAGGAAGATCCTGATGACGCTGACAGTCAAGGTTCTCGGTGCTCGCCATCTCCCCAACTT
GGACGAAGTATTGCCGTGTCCCTTTGTAGAAGTGGAGATCTGTGGAGCCGAGTATGACAACAACAAGTTCAAGACG
ACGGTTGTGAATGATAATGGCCTCAGCCCTATCTGGGCTCCAACACAGGAGAAGGTGACATTTGAAATTTATGAC
CCAAACCTGGCATTCTGCGCTTTGTGGTTTATGAAGAAGATATGTTTCAGCGATCCCAACTTTCTTGCTCATGCC

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FIGURE 4600B

ACTTACCCCATTTAAAGCAGTCAAATCAGGATTCAGGTCCGTTCCCTCTGAAGAATGGGTACAGCGAGGACATAGAG
CTGGCTTCCCTCCTGGTTTTCTGTGAGATGCGGCCAGTCCGGAGAGCGAAGAGGAACTTTACTCCTCCTGTCGC
CAGCTGAGGAGGCGGCAAGAAGAACTGAACAACCAGCTCTTTCTGTATGACACACACCAGAACTTGCGCAATGCC
AACCGGGATGCCCTGGTTAAAGAGTTTCAAGTGTAAATGAGAACCAGCTCCAGCTGTACCAGGAGAAATGCAACAAG
AGGTTAAGAGAGAAGAGAGTCAAGCAACAGCAAGTTTTACTCATAAGCTGGGGTATGTGTGTAAGGGTATTGTG
TGTGTGCGCATGTGTGTTTGCATGTAGGAGAACGTGCCCTATTCACACTCTGGGAAGACGCTAATCTGTGACATC
TTTTCTTCAAGCCTGCCATCAAGGACATTTCTTAAGACCCAAGTGGCATGAGTTGGGGTAATTTCTTATTATTTT
CATCTTGGACAACCTTTCTTAAGTATATTTCTTATAGAGGATCCCCAAAATGTGCTCCTCATTTTTGGCCTCTC
ATGTTCCAAACCTCATTGAATAAAAGCAATGAAAACCTTG

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FIGURE 4601

MSTTVNVDSLAEYEKSQIKRALELGTVMTVFSFRKSTPERRTVQVIMETRQVAWSKTADKIEGFLDIMEIKEIRP
GKNSKDFERAKAVRQKEDCCFTILYGTQFVLSTLSLAADSKEDAVNWLSGLKILHQEAMNASTPTIIIESWLKQI
YSVDQTRRNSISLRELKTIPLINFKVSSAKFLKDKFVEIGAHHKDELSFEQFHLFYKKLMFEQQKSILDEFKKDS
SVFILGNTDRPDASAVYLHDFQRFLIHEQQEHWAQDLNKVRERMKTFIDDTMRETAEPFLFVDEFLTLYLFSRENS
IWDEKYDAVDMQDMNPLSHYWISSSHNTYLTGDLRSESSPEAYIRCLRMGCRCIELDWCWDGPDGKPVYHGW
RTTKIKFDDVVQAIKDHAFVTSSFPVILSIEEHCSVEQQRHMAKAFKEVFGDLLLTKPTEASADQLPSPSQLREK
IIIKHKKLGPRGDVDVNMEDKKDEHKQQGELYMWDSIDQKWTRHYCAIADAKLSFSDDIEQTMEEVPPQDIPPE
LHFGEKWFHKKVEKRTSAEKLLQEYCMETGGKDGTFVLVRESETFPNDYTLFWRSGRVQHCRIRSTMEGGTLKYY
LTDNLTFSSIIYALIQHYRETHLRCAEFELRLTDPVPNPNPHEKSPWYDLSRGEAEDMLMRIPRDGAFLIRKRE
GSDSYAITFRARGKVKHCRINRDGRHFLGTSAFYESLVELVSYYEKHSLYRKMRLRYPVTPELLERYNMERDIN
SLYDVSRMYVDPSEINPSPMPQRTVKALYDYKAKRSDELSFCRGALIHNVSKEPGGWWKGDYGTRIQQYFPSNYVE
DISTADFELEKQIIEDNPLGSLCRGILDLNTYNVVKAPQGKNQKSFFVFILEPKQQGDPPVEFATDRVEELFEWF
QSIREITWKIDTKENNMKYWEKNQSI AIELSDLVYCKPTSKTKDNLENPDFREIRSFVETKADSIIRQKPVDLL
KYNQKGLTRVYPKGQRVDSSNYDPFRLWLCSQMVALNFQTADKYMOMNHAFSLNGRTGYVLQPESMRTEKYDP
MPPEQRKILMTLTVKVLGARHLPKLGRSICPFVEVEICGAEYDNNKFKTTVVNDNGLSPIWAPTQEKVTFEIIY
DPNLAFRLRFVVEEDMFSDPNFLAHATYPIKAVKSGFRSVPLKNGYSEDIELASLLVFCEMRPVLESEEEELYSSC
RQLRRRQEELNNQLFLYDTHQNLNRNANRDALVKEFSVNNENQLQLYQEKCNKRLREKRVSNKSFYS

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FIGURE 4602

GGGCGGGCCCGCACCCCTGCGAACATGGCGCTGCGAGTGGTGCGGAGCGTGCGGGCCCTGCTCTGCACCCTGCGC
GCGGTCCCGTTACCCGCCGCGCCCTGCCCGCCGAGGCCCTGGCAGCTGGGGGTGGGCGCCGTCCGTACGCTGCGC
ACTGGACCCGCTCTGCTCTCGGTGCGTAAATTCACAGAGAAACACGAATGGGTAAACAACAGAAAATGGCATTGGA
ACAGTGGGAATCAGCAATTTTGCACAGGAAGCGTTGGGAGATGTTGTTTATTGTAGTCTCCCTGAAGTTGGGACA
AAATTGAACAAACAAGATGAGTTTGGTGCTTTGGAAAGTGTGAAAGCTGCTAGTGAACCTATTCTCCTTTATCA
GGAGAAGTAACTGAAATTAATGAAGCTCTTGCAAGAAATCCAGGACTTGTAACAAATCTTGTTATGAAGATGGT
TGGCTGATCAAGATGACACTGAGTAACCCCTTCAGAACTAGATGAACCTATGAGTGAAGAAGCATATGAGAAATAC
ATAAAATCTATTGAGGAGTGAATGGAACCTCTAAATAAACTAGTATGAAATAACGCAAGCCAGCAGAGTTGTC
TTAAATTAGTGGTGGATAGAAGACTTAGAATAGAACTTTTAGTATTACCGATGGGGAAAAAAAACACTACTGTTA
ACACTGCTAATGAAAGAAAATGCCCTTTAACTTTCTAATGATTATAGATAAATAAATATGCGTCTTTTTTCACAA
TATCCTATGATTTTTAGACTAGGCTCTAGTGTTTCAAGATTCATGAAATTATCCATGGTAAAACTAGTTATAAAA
ATTACATAATTCAAAGATAACATTGTTATTCTTAAGCCTTATATAATATTGTAACCTGCAATGTATCCATACCTGG
ATTTGGGATGAAATACTTAATGATCTTTCCATTGGAAATAACTGGAAGTGAAGAGGTTTTGTTGCTTGTACAGTG
TCAGATGAGGAACACCACTATCTTAATTTTGCATACACTGCATTTGCTGGTGCTATTTTTATACAGTGAAGCAA
CAGCTTTGCAGCAAAATAATAAAATACTTCTTCGTT

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FIGURE 4603

MALRVVRSVRALLCTLRVPLPAAPCPRPWQLGVGAVRTLRTGPALLSVRKFTKHEWVTENGIGTVGISNFA
QEALGDVVYCSLPEVGTKLNKQDEFGALESVKAASELYSPLSGEVTEINEALAENPGLVNKSCYEDGWLIKMTLS
NPSELDELMSEEAYEKYIKSIEE

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FIGURE 4604

ACGGTGGAGCGGTGGAGGGCGTCACTGGGTTTCGGCGTCTGGCAAGCGGTTTCAGCTGTCTGCTCCCTAGCAGCCG
GCCTTCGGGTTCGGGCGTCTCCGCGGCTACTGCCGCTTCAGTTCTCCCGGTGTGGCCACGAGTCGGGTTGCACTGC
TGTGATCCATCCTCATCTCCTAAAGATGCATCCTGACTTATCTCCACACTTGCACACTGAAGAATGCAACGTCTT
GATTAACCTTGCTTAAGGAATGTCACAAAAATCACAACATTCTGAAATTTTTTGGTTATTGTAATGATGTTGATCG
GGAGTTGAGAAAATGCCTGAAGAATGAGTACGTAGAAAACAGGACCAAGAGCAGGGAGCATGGCATTGCAATGCG
AAAGAACTTTTTAATCCTCCAGAGGAATCCGAAAAATAAATTGTATTTTCACTCGATGCCTTGGCTGAGAGAAG
ACCTAAAGACTCTGGGTTGATACCTGAAAGAACTCTGTCTTATTTGGTCTCCATAATCCTTTGAATGGAAAGTGA
CCTGTGAGAGATTGAACCATGGAGAAATATGAAAACCTGGATTCTGAGTATTTGTTGGGCAGGGCGTTTAGTAC
TGTCTCCCTTTTACCAGCAAACCTGACTTCACCATGTTTATTCCTTTGCCTACAACCAGTTAATATCTGAGTAA
CTTATCTCCTTCAATAAAATAATTTAAATAAAAAAAAAAAAA

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FIGURE 4605

MHPDLSPHLHTEECNVLINLLKECHKNHNILKFFGYCNDVDRELKCLKNEYVENRTKSREHGIAMRKKLFNPPE
ESEK

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FIGURE 4606

GCGCAGGCGCGGCGGCCGATGCGAGTGTGTATGTGCGGGCGAGAAGATGGCGGCGGCGGGGGAAGCAGCGTGAGC
AGCCGGAGGATCGCGGAGTCCCAATGAAACGGGCAGCCATGGCCCTCCACAGCCCGCAGTATATTTTTGGAGATT
TTAGCCCTGATGAATTCAATCAATTCTTTGTGACTCCTCGATCTTCAGTTGAGCTTCTCCATACAGTGGAACAG
TTCTGTGTGGCACACAGGCTGTGGATAAACTACCTGATGGACAAGAATATCAGAGAATTGAGTTTGGTGTCTGATG
AAGTCATTGAACCCAGTGACACTTTGCCGAGAACCCCGAGCTACAGTATTTCAAGCACACTGAACCCCTCAGGCCC
CTGAATTTATTTCTCGGTTGTACAGCTTCCAAAATAACCCCTGATGGTATCACTAAAGAAGCAAGCTATGGCTCCA
TCGACTGCCAGTACCCAGGCTCTGCCCTCGCTTTGGATGGAAGTTCTAATGTGGAGGCGGAAGTTTGGAAAAATG
ATGGTGTCTCAGGTGGTCTTGACAAAGGGAGCGTAAAAAGAAGAAAAAGCGGCCACCTGGATATTACAGCTATT
TGAAAGATGGTGGCGATGATAGTATCTCCACAGAAGCCCTGGTCAATGGCCATGCCAATTCAGCAGTCCCGAACA
GTGTCAGTGCAGAGGATGCAGAATTTATGGGTGACATGCCCCCGTCAGTTACGCCCAGGACTTGTAAACAGCCCC
AGAACTCCACAGACTCTGTCAGTGACATTGTGCCTGACAGTCCTTTCCCGGAGCACTCGGCAGTGACACCAGGA
CTGCAGGGCAGCCAGAGGGGGGCCCCGGGGCTGATTTTGGTCAGTCTGCTTCCCTGCAGAGGCTGGCAGAGACA
CCCTGTCAAGGACAGCTGGGGCTCAGCCCTGCGTTGGTACCGATACTACTGAAAACCTTGGAGTTGCTAATGGAC
AAATACTTGAATCCTCGGGTGAGGGCACAGCTACCAACGGGGTGGAGTTGCACACCACGGAAGCATAGACTTGG
ACCCAACCAAACCCGAGAGTGCATCACCTCCTGCTGACGGCACGGGCTCTGCATCAGGCACCCCTTCTGTCTAGCC
AGCCCAAGTCTTGGGCCAGCCTCTTTTCATGATTCTAAGCCCTCTTCTCCTCGCCGGTGGCCTATGTGGAAACTA
AGTATTTCCCTTCCCGCCATATCTCCCTGGTTTCTGAAAAGCAGGTTGAAGTCAAAGAAGGGCTTGTTCGGGTTT
CAGAGGATCCTGTAGCCATAAAGATTGCAGAGTTGCTGGAGAATGTAACCCTAATCCATAAACCAGTGTGCTTGC
AACCCCGTGGGCTGATCAATAAAGGGAAGTGGTGTACATTAATGCTACACTGCAGGCATTGGTTGCTTGCCCGC
CGATGTACCACCTGATGAAGTTTCAATCTCTGTATTCCAAAGTGCAAAGGCCTTGACGTCAACACCCATGATAG
ACAGCTTTGTTTCGGCTAATGAATGAGTTCATAATGCCAGTACCTCCAAAACCCCGACAAGCTCTTGGAGATA
AAATCGTGAGGGATATTGCCCCTGGAGCTGCCTTTGAGCCACATATATTTACAGACTCCTGACAGTTAACAAGT
CAAGCCTGTCTGAAAAGGGTCGACAAGAAGATGCTGAGGAATACTTAGGCTTCATTCTAAATGGACTTCATGAGG
AAATGTTGAACCTAAAGAAGCTTCTCTCACCAAGTAATGAAAACTTACGATTTCCAACGGCCCCAAAAACCACT
CGGTCAATGAAGAAGAGCAGGAAGAACAAGGTGAAGGAAGCGAGGATGAATGGGAACAAGTGGGCCCCCGGAACA
AGACTTCCGTACCCGCCAGGCGGATTTTGTTCAGACTCCAATCACCGGCATTTTGGTGGACACATCAGGTCTG
TGGTTTACCAGCAGAGTTCAAAGAATCTGCCACTTTGCAGCCATTTTTCAGTTGCAGTTGGATATCCAGTCAG
ACAAGATACGCACAGTCCAGGATGCACTGGAGAGCTTGGTGGCAAGAGAATCTGTCCAAGGTTATACCACAAAAA
CCAAACAAGAGGTTGAGATAAGTCAAGAGTGAATCTGGAATAACTCCCTCCTGTCTCTGCTGCACCTGAAAC
GATTGCTTTATGAGAAGACTGGTGGGTGCCAGAAGCTTATCAAAAATATTGAATATCCTGTGGACTTGGAAATTA
GTAAAGAAGTCTTTCTCCAGGGGTTAAAAATAAGAATTTTAAATGCCACCGAACCTATCGGCTGTTTGCAGTGG
TCTACCATCACGGCAACAGTGCAGCGGGCGGCCATTACACTACAGACGTCTTCCAGATCGGTCTGAATGGCTGGC
TGCGCATCGATGACCAGACAGTCAAGGTGATCAACCAGTACCAGGTGGTGAACCAACTGCTGAACGCACAGCCT
ACCTCCTGTATTACCGCCGAGTGGACCTGCTGTAAACCTGTGTGCGCTGTGTGTGCGCCAGTGCCCGCTTCGT
AGGACACCACCTCACACTCACTTCCCGCCTCTCTTTAGTGGCTCTTTAGAGAGAACTCTTTCTCCCTTTGCAAA
AATGGGCTAGAATGAAAAGGAGATGCCTTGGGGTTCGTGCACAACACAGCTTCTGTTGACTCTAACTTCCAAATC
AAAATCATTGTTGTTGAAACAGACTGTTGCTTGATTTTAGAAAATACACAAAAACCCATATTTCTGAAATAATGCT
GATTCTGAGATAAGAAAGTGGATTTGATCCCCAGTCTCATTGCTTAGTAGAATAAATCCTGCACCAGCAACAAC
ACTTGTAATTTGTGAAAATGAATTTTATCTTCCCTTAAAAAAGAAATTTTTTAATCCATCACACTTTCTTCCC
TACCCTTTAGTTTTTGATAAATGATAAAATGAGCCAGTTATCAAAGAAGAACTAGTTCTTACTTCAAAGAAAA
ATAAACATAAAAAATAAGTTGCTGGTTCCTAACAGGAAAAATTTTAATAATTGTACTGAGAGAACTGCTTACGT
ACACATTGCAGATCAAATATTTGGAGTTAAATGTTAGTCTACATAGATGGGTGATTGTAACCTTATTGCCATTA
AAAGATTTCAAATTGCATTCTGCTTCTGTGTACACATAATGAAAAATGGGCAATAATGAAGATCTCTCCTTCA
GTCTGCTCTGTTAATTCTGCTGTCTGCTCTTCTCTAATGCTGCGTCCCTAATTGTACACAGTTTAGTGATATCT
AGGAGTATAAAGTTGTGCGCCATCAATAAAAAATCACAAAGTTGGTTT

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FIGURE 4607

MALHSPQYIFGDFSPDEFNQFFVTPRSSVELPPYSGTVLCGTQAVDKLPDGQEYQRIEFGVDEVIEPSDTLPRTP
SYSISSTLNPQAEFILGCTASKITPDGITKEASYGSIDCQYPGSALALDGSSNVEAEVLENDGVSGGLGQREK
KKKKRPPGYYSYKDGDDDSISTEALVNGHANSAPNSVSAEDAEFMGDMPPSVTPRTCNSPQNSTDVSDIVPD
SPFPGALGSDTRTAGQPEGPGADFGQSCFPAEAGRDTLSRTAGAQPCVGTDTTENLGVANGQILESSGEGTATN
GVELHTTESIDLDPKPEASPPADGTGSASGTLPVSQPKSWASLFHDSKPSSSSPVAYVETKYSPPAISPLVSE
KQVEVKEGLVPVSEDPVAIKIAELLENTLIHKPVSLQPRGLINKGNWCYINATLQALVACPPMYHLMKFIPLYS
KVQRPCTSTPMIDSFVRLMNEFTNMPVPPKPRQALGDKIVRDIRPGAFAFEPTYIYRLLTVNKSSLSEKGRQEDAE
EYLGFI LNGLHEEMLNLKKLLSPSNEKLTISNGPKNHSVNEEEQEEQEGSEDEWEQVGPRNKTSVTRQADFVQT
PITGIFGGHIRSVVYQQSSKESATLQFFTLQLDIQSDKIRTVQDAESLVARESVQGYTTTKQEVEISRRVTL
EKLPPVLVLHLKRFVYEKTGGCQKLIKNI EYPVDLEISKELLSPGVKNKNFKCHRTYRLFAVVYHHGNSATGGHY
TTDVFQIGLNGWLRIDDQTVKVINQYQVVKPTAERTAYLLYYRRVDLL

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FIGURE 4608

GGAAGCCGACGCCGCGCTCGCATGCTCGCAGGCGCCGCGTAGCCGTCGCCACCGCCGCCAGCCCGTGCGCCCTCG
GCGCGTACCCGCCGCGCTCCCATCCCCGCCGCCGGCCAGGGGCGCGCTCGGCCGCCCGGACAGTGTCCCGCTGC
GGCTCCGCGCGCATGGCCACCAAGATCGACAAAGAGGCTTGCCGGGCGGCGTACAACCTGGTGCGCGACGACGGC
TCGGCCGTCATCTGGGTGACTTTTAAATATGACGGCTCCACCATCGTCCCCGGCGAGCAGGGAGCGGAGTACCAG
CACTTCATCCAGCAGTGACAGATGACGTCCGGTTGTTTGCTTCGTGCGCTTCACCACCGGGGATGCCATGAGC
AAGAGGTCCAAGTTTGCCCTCATCACGTGGATCGGTGAGAACGTCAGCGGGCTGCAGCGCGCCAAAACCGGGACG
GACAAGACCCTGGTGAAGGAGGTCTGACAGAATTCGCTAAGGAGTTTGTGATCAGTGATCGGAAGGAGCTGGAG
GAAGATTTTCATCAAGAGCGAGCTGAAGAAGGCGGGGGAGCCAAATTACGACGCCAGACGGAGTAACCCAGCCC
CCGCCACACCACCCCTTGCCAAAGTCATCTGCCTGCTCCCCGGGGGAGAGGACCGCCGGCCTCAGCTACTAGCCC
ACCAGCCCACCAGGGAGAAAAGAAGCCATGAGAGGCAGCGCCGCCACCCGTGTGCCAGCCCCACCTTCCCG
CTTCCCTTAGAACCTGCCGTGTCTATCTCATGACGCTCATGGAACCTCTTTCTTTGATCTTCTTTTCTTTTC
TCCCCCTCTTTTTTGTCTAAAGAAAAGTCATTTTGATGCAAGGTCTGCTGCCATCAGATCCGAGGTGCCTCC
TGCACTGACCCCTTTTCTGGCATTTCTCTTCCACGCGACGAGGTCTGCCTAGTGAGATCTGCATGACCTCACGT
TGCTTTCCAGAGCCCCGGGCCTATTTTGCCATCTCAGTTTTCTGGACCCTGCTTCCTGTGTACCACTGAGGGGCA
GCTGGGCCAGGAGCTGTGCCCGGTGCCTGCAGCCTTCATAAGCACACACGTCCATTCCCTACTAAGGCCAGACC
TCCTGGTATCTGCCCCGGGCTCCCTCATCCCACCTCCATCCGGAGTTGCCAAGATGCATGTCCAGCATAGGCAG
GATTGCTCGGTGGTGAGAAGGTTAGGTCCGGCTCAGACTGAATAAGAAGAGATAAAATTTGCCTTAAACTTACC
TGGCAGTGGCTTTGCTGCACGGTCTGAAACCACCTGTTCCCACCCTCTTGACCGAAATTTCTTGTGACACAGAG
AAGGGCAAAGGTCTGAGCCCAGAGTTGACGGAGGGAGTATTTAGGGTTCACTTCAGGGGCTCCCAAAGCGACAA
GATCGTTAGGGAGAGAGGCCAGGGTGGGGACTGGGAATTTAAGGAGAGCTGGGAACGGATCCCTTAGGTTACAG
AAGCTTCTGTGTAAGCTGCGAGGATGGCTTGGGCCGAAGGGTTGCTCTGCCCGCCGCGCTAGCTGTGAGCTGAGC
AAAGCCCTGGGCTCACAGCACCCCAAAGCCTGTGGCTTCAGTCTGCGTCTGCACCACACATTCAAAGGATCG
TTTTGTTTTGTTTTTAAAGAAAGGTGAGATTGGCTTGGTTCTTCATGAGCACATTTGATATAGCTCTTTTCTGT
TTTTCTTGCTCATTTCTGTTTTGGGAAGAAATCTGTACTGTATTGGGATTGTAAAGAACATCTCTGCACTCAGA
CAGTTTACAGAAATAAATGTTTTTTTTGTTTTTCAG

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FIGURE 4609

MATKIDKEACRAAYNLVRDDGSAVIWVTFKYDGSTIVPGEQGAEYQHFIQQCTDDVRLFAFVRFTTG DAMSKRSK
FALITWIGENVSGLQRAKTGTDKTLVKEVVQNFAKEFVISDRKELEEDFIKSELKKAGGANYDAQTE

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FIGURE 4610

GCGGCCGGCGGCGTCTCCTCCCGGGACGCTGAGGGGCCCGAGGAGACCGTGAGGCTCTGGCCTGCAGCTCGCGCC
GCCATGGACGCTGCCGAGGTCGAATTCCTCGCCGAGAAGGAGCTGGTTACCATTATCCCCAACTTCAGTCTGGAC
AAGATCTACCTCATCGGGGGGGACCTGGGGCCTTTTAACCCTGGTTTACCCGTGGAAGTGCCCTGTGGCTGGCG
ATTAACCTGAAACAAAGACAGAAATGTCGCCTGCTCCCTCCAGAGTGGATGGATGTAGAAAAGTTGGAGAAGATG
AGGGATCATGAACGAAAGGAAGAACTTTTACCCCAATGCCCAGCCCTTACTACATGGAACCTACGAAGCTCCTG
TTAAATCATGCTTCAGACAACATCCCGAAGGCAGACGAAATCCGGACCCTGGTCAAGGATATGTGGGACACTCGT
ATAGCCAAACTCCGAGTGTCTGCTGACAGCTTTGTGAGACAGCAGGAGGCACATGCCAAGCTGGATAACTTGACC
TTGATGGAGATCAACACCAGCGGGACTTTCTCACACAAGCGCTCAACCACATGTACAACTCCGCACGAACCTC
CAGCCTCTGGAGAGTACTCAGTCTCAGGACTTCTTAGAGAAAGGCCTGGTGCAGGCGGCTTGCTGGGGGATGTGAG
CGCTCAGGATGTGATGAGGTACTCGTGGTTCTGGAGCTCTAGAAACACTTCTGATGCATGAAAAATGTGTGATGG
TGCAAGGAATGGATTCAAGGATGTTGTTGGAGAAACAAGTTTGTGATTAGTCCTTAAAACTTAGCTCCCTGGGACA
TTCTTCAATTCCACATCTGTTTCTAGAAACCAGCCCTTTTCCCCCACTTTTGAGAAATAAAAAAGCCTTAGGT
AAATAAGTCATTCTCCCTAGCAGAGCCACTTGGGTCTCCTGCATGGAAGCCGTCACACTTGGGCAGGTGTTTCAGT
GACTGGTAGGTGTAGATACAGCAGGAGTGGCCATGTGGTCCACGGCTTTTACCCTTCTTGATCCTGATTCTT
GGGCTGAATTTAGACTCTCTCACAGAGGTGGCTCACAGAGAAGGATGGCAGATGGTGCAGCCAACAATGCTGACC
GGTGCTTATCCTCTAAGCCCTGATCCACAATAAAAAATGGACCAACTCAAAAAAAAAA

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FIGURE 4611

MDAAEVEFLAEKELVTIIPNFSLDKIYLIIGD LGPFNPGLPVEVPLWLAINLKQRQKCRLLPPEWMDVEKLEKMR
DHERKEETFTPMPSPYME LTKLLN HASDNIPKADEIRTLVKDMWDTRI AKLRVSADSFVRQQEAHAKLDNLTL
MEINTSGTFLTQALNHMYKLRTNLQPLESTQSQDF

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FIGURE 4612

GGCACGAGGCTTCCCAGAGGCGCGAGTCGCTTTTCCAGGAGCCGAGGCCCAAACGGGGCCGGGCTGAAGGGTCC
CCCGCCAGCCCGCGGGCCGCGCCATCAATCGCCGCGCCTCGTCCCGCTTCTCGGCTGAGGCGCCGCGCGGCCAGG
CAGC~~G~~GGTCCAGGCCTCAGCCGCGCGCCAGGGGCTCCGGGGCCCTCCCGGGTCAGC**ATG**CCCGGGGTGAAACT
GACCACCCAGGCCTACTGCAAGATGGTGCTGCACGGCGCCAAGTACCCGCACTGCGCCGTCAACGGGCTCCTGGT
GGCCGAGAAGCAGAAGCCGCGTAAGGAGCACCTCCCCCTGGGCGGCCCGGCGCCACCACACCTCTTCGTGGA
CTGCATCCCCCTCTTCCACGGCACCTGGCCCTCGCCCCATGCTGGAGGTGGCTCTCACCTGATTGATTCATG
GTGCAAAGATCATAGCTACGTGATTGCTGGTTATTATCAAGCTAATGAGCGAGTAAAGGATGCCAGTCCAAACCA
GGTTGCAGAGAAGGTGGCCTCCAGAATCGCCGAGGGCTTCAGCGACACTGCGCTCATCATGGTAGACAAACACCAA
GTTTACGATGGACTGCGTAGCGCTACGATCCACGTGTACGAGCACCATGAGAACAGATGGCGGTGCAGAGACCC
ACACCATGACTACTGTGAAGACTGGCCAGAGGCACAGAGGATCTCAGCCTCGCTCCTGGACAGCCGGTCTTACGA
GACGCTCGTGGATTTCGATAAACCACCTGGATGACATTCGGAATGACTGGACAAACCCAGAGATCAATAAAGCTGT
CCTACACTTGTGCT**TAGG**CAGGCACCGCTGTGACTGGGCTCCGGGCCTTCCACTACGTTGAAGAAGAAAACCTAT
TTTTAAATGTAAATAAAATATCTGGTAGCCTGTGTGGAAGCTGACCGTTTTAAGAAGTGGCATGTGCCTTGAAA
GGGGGCAGAAATGTTCACTCGGTCTGTGTTTTTAACACAGAGTCTCTAGAAGAGGTGCAGACATCCCGTCTGACTGT
CCCTGTGGACTCTCTCAGTTGTATGTTGCTATAATCCTCCAAATCAAAGCTCTTTCTGCTTGTGCAAGATTGTTT
CTATTAAACAGTTTTAACTAACCTTTTATAATCTGGAGAGAATACTTTTTAAGGCTTTTGAAGTATCTTTTTTA
AAAAAAAAAAAAAGCCACATCTTATACTCCAATGAGTGTGTTTGTGAGTTTTATCCTGTTGAATTTTGATGT
CGTCCAGGCGTCTTGGGATCAGGGTAGACACGTGGAGTGTGCTGGTGTGAGCTGTTGAGAAGCTCTGTGTGGGTG
TTTCTGTGGTCAGGTAGGCTGGGCTGTGAACAGCACTGCTCCACATGGTGTGCGGCTCACAGAGCCACCGCAACTC
TGCCACGCGGGAGTGACACCACTGATGCCACAGAAGCCTTATCGTTAGGGGCAAAAGCAGACATCTCTGGTAGC
AGGAGCTCAGTGTGGTGCTCTTCAGCCACGCAGAAAGCTCACGTGCCTGCAGGGCCAGGAAAGGAAATGATCGT
TTCTTTTGTATTAGGAAAAACAAGACTTAGACTTCCCGAGTTGTGCAGAGTGACGTCTGTACTTTTTATACTTAG
AACATTTGGTCAAGTTTTGTAAACCAACCTTAGGGAATTGAGAGGGAACTTTATGGTACGTTTACCTTTTTTCC
TTTTTATATGAATTATTTTGTACAAAGTTCAGAGAGCGGTACCTTTCCTACTGTCTTTCTTTGACTCCATGGAG
GAATTTGTAACGATCGGTGTGACCTGAAAGGGTTTGTGATACAGCGGTCACTATTTCTCTTAACACATAGGAAA
AAAGTTCAGACATCGCTACAATAAATGTGCTTTATTTGATCCAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 4613

MPGVKLTTQAYCKMVLHGAKYPHCAVNGLLVAEKQKPRKEHLPLGGPGAHTLFVDCIPLFHGTLALAPMLEVAL
TLIDSWCKDHSYVIAGYYQANERVKDASPNQVAEKVASRIAEGFSDTALIMVDNTKFTMDCVPTIHVYEHENR
WRCRDPHHDYCEDWPEAQRISASLLDSRSYETLVDFDNHLDDIRNDWTNPEINKAVLHLC

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FIGURE 4614

CGACGTTTCGCAGCGCTACCCTTTTCCGCTCCACGGTGACCTCCGTGCGGGCCGGGTGCGGGCGGAGTCTTCCTCGA
TCCCGTGGTGCTCCGCGGGCGGGCCTTGCTCTCTTCCGGTCGCGGGACACCGGGTGTAGAGGGCGGTTCGCGGCGG
GCAGTGGCGGCAGAAATGTTGGCTACCAGGGTATTTAGCCTAGTTGGCAAGCGAGCAATTTCCACCTCTGTGTGTG
TACGAGCTCATGAAAGTGTGTGAAGAGCGAAGACTTTTCGCTCCCAGCTTATATGGATCGGCGTGACCACCCCT
TGCCGGAGGTGGCCCATGTCAAGCACCTGTCTGCCAGCCAGAAGGCACTGAAGGAGAAGGAGAAGGCCTCCTGGA
GCAGCCTCTCCATGGATGAGAAAGTCGAGTTGTATCGCATTAAGTTCAAGGAGAGCTTTGCTGAGATGAACAGGG
GCTCGAACGAGTGGAAGACGGTTGTGGGCGGTGCCATGTTCTTCATCGGTTTCACCGCGCTCGTTATCATGTGGC
AGAAGCACTATGTGTACGGCCCCCTCCCGCAAAGCTTTGACAAAGAGTGGGTGGCCAAGCAGACCAAGAGGATGC
TGGACATGAAGGTGAACCCCATCCAGGGCTTAGCCTCCAAGTGGGACTACGAAAAGAACGAGTGGAAGAAGTGAG
AGATGCTGGCCTGCGCCTGCACCTGCGCCTGGCTCTGTACCGCCATGCAACTCCATGCCTATTTACTGGAAACC
TGTTATGCCAAACAGTTGTACCACTGCTAATAAATGACCAGTTTACCTGAAA

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FIGURE 4615

MLATRVFSLVGKRAISTSVCVRAHESVVKSEDFSLPAYMDRRDHPLPEVAHVKHLSASQKALKEKEKASWSSL
DEKVELYRIKFESFAEMNRGSNEWKTVVGGAMFFIGFTALVIMWQKHVYVYGPLQSFDEWVAKQTKRMLDMKV
NPIQGLASKWDYEKNEWKK

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FIGURE 4616A

GTTC TAGAACATTCTCATCACCCATATTTACATTTATTTTTTAATAACTCTCATGTGTAAAGCTGAGTGTTTTAAAC
TTTAGAGACTTCTG GGGGGTGCTGAAC TTGATAAAAAATATTCAGTATACAAGTGTTCTTTATAGTTCACTCATCA
TTTTCATAGAATTAGGGTTTTTAAATTAGAAAGTAATTTAGGCCATTTCCATCTCCTGTCCCTCAAATCCCAGCT
CAGTTTTGGGATGAGGTGTCAAGTATAAGTTTGTAAGTATGCCAGTCATTTGCACGGCTAAGAGAAACATCTAGA
GAAGTCTATATACGACTTGCTTAAAGCTGAATGTTGATTACTGTTTACATGATTTGGGTGATTTTAGTCACTGG
GACTGAGCTAATGGAGTTGAAGCATTGTTGCGGGCATTGTACCTCCAGACCAGTGTTGTAATACAAAGAGTTCTTG
CAGACATAGGACAGAATTGGAGAAACAGCTTCTAACAGTGGGAAGACTCTCAGTACAACCAAGCTATTTCCTTACC
TTTCTGATTTCTGAAC TTTTTCCATGTGATACCTGCTGCTTTGAAGGCACTAAAATAACAGAAGCAGATAGAGC
AGAAATCCTCACTCAGATCTTCTCCTTCCCTACCTGTATAACAGTTTGTGGCTTGCCCTTGCTGTGTTTTGTGCGTT
TCGTTACGCGTATGTGAGTATGTGCACGTGATTTCCAGAAAGGAGAAGCGCACGATACTGCCCGTGCTCTGTGAC
TCCTGAGTGCACGCTTCCCTGCTGCTTTGGGCTCCTAGGTCGGCCTCGTCTGTGGACGTTGCCCTTGTTTTCGTG
CCATCCACACATTCTGATGCCCCGCTGCTCTACTCTTTCTCCAGAGTACTTTTTCCAAACATGTGATTTGCACA
TTTGTTATGTTTATGTTTGTGTTTTCCACTTCTAGAAGTGTGCCACTAGGCAGGAATGTTTGATTTGTTCACTGAT
GATCCCAGATCTCTAGAACCTGCTTGCTGTAGAGGGTGCTTGGTAAATGTGCTCTGAATGAATGGCTCCATG
ATCCTCGTTTCTAAGAGCTAGCACGATTTCTCACTCAGTCTGGTTGGACACAGGTTCCCTGGAACAGTGCTGTT
GTGGTTATCTTCTCACGTGCTTTGTTTCTGAAC TTGAAACGCTTTGAGTTTTTTATTGTTTTTGTCTTCTCTCA
TTAGTTTGAGTCCCTTG CAGATAGGCTTTTCA TTTTGTCCAGTCACTGTTTCAAGGAGCCCTGAGGGCCTTGCCCC
ACGCTG CAGGTAAC TGGTTTTTTTATTTTTTATTTTTTATTTTTGAGACGAAGTCTCGCTCTGTCAACAGGCTGG
AGTGCAGCGGTGCGATCTCAGCTCACTGCAACCTCCGCTCCTGCGTTCAAGCGATTCTCCTGCCTCAGCCTTCC
GAGTAGCTGGGACTATAGGCACGTGCCGCCACGCCCGCTAATTTTTTGTATTTTTAGTAGAGACGGGGTTTAC
CATGTTAGCCAGGATGGTCTCGATCTCCTGACATCGTGATCCGCTGCCTGGGCCTCCCAAAGTGCTGGGATTAC
AGGTGTGAGCCACCGCGCCAGCCCTGCAGGTAAC TGTAAATGTAGGAAGTGCTGCCTCTGGGCACCTTGCCCC
AGGGTTCATTAGCAGTTGCCCTGGTGGGTTTTGTTGGCTGTGATGAGAAGTGCTTCTGTTCCCCCTCCACCAC
ACTCTGCAACTGTTTAAACAGTGGCTGTGACCCCTGAGATGATCCAGGGTTTCAAGGCGTGACATGTCTGTG
TTTCGGTTTTT CAGAAGTATCACCTTGGGGTGACTCTCAACTTACATGGATTTTCAAAGATTTATTCAATATGTTT
TTCAGAAAGTGTGTGAAGAGCGAAGACTTTTGCCTCCAGCTTATATGGATCGGCGTGACCACCCCTTGCCGGA
GGTGGCCCATGTCAAGCACCTGTCTGCCAGCCAGAAGGCATTGAAGGAGAAGGAGAAGGCCTCCTGGAGCAGCT
CTCCATGGATGAGAAAGTCGAGTGTGGGTATTGAAGGGACCCACAGGCGCGCCAGCAGCTCTCGGAAGCTGTG
TGTGACAGAGCCTCTGCTCACTTCTGGGCCTACTGTCTAGAGGCAGTCTTGACAGGAGGGTTGCTCTGCTGGGT
TTCGGGGTCACTGTGCCAGGGCCCCAGTTTATGTGCTCACCAGTCACTTAGCTCTGCCAGCTGACAGGATCTTTT
GCTAGGCCCCCTTCTCTGTGCTGAGTGGAGGTAGCCTCTCAGCATATCTGCTGGGTAAGACATAGTTAACTGTAA
ATTATTGAAAGAACTCAGCAAAATGCATAGTGTTTGGTATGAAAGGGGCAGAAAAATAACAAGATTAAATAGAC
CCTAATACTGTAATTCAGTAAGAAATAATTTTGCAGTTTTTAATTTGCACCTGAAGCGAAGTGTATGCATTTTCT
TCTTTCCTTGCCCTGTACATGCCTGCGTGGGCACGTGTGTGCACGTACGTGCGTGAACATGATGTGGCCTGGGT
TGGTGTATCCTTCAGCTCTGTGTTTCTCCTTCACAAGTGTGGTTTTTGGGGAGAAGTGGTTGAATGTTGCAGAGG
AGGGAGCTGCTGACCTTTGTGCTGTAAATGGCTGTCTCTCTGCCCCCAGTGATCGCATTAAGTTCAAGGAGA
GCTTTGCTGAGATGAACAGGGGCTCGAACGAGTGGAAGACGGTTGTGGGCGGTGCCATGTTCTTCATCGGTTTTCA
CCGCGCTCGTTATCATGTGGCAGAAGCACTATGGTGAGTAGAGAGGGAGGAAGGCATGGGCGCCTGGACTGGGGC
TCCAGCCTGCAGTGCCATTGGTGGGCTGTGCGGGACCTCCATACCTTGAGGCTATGAGATAGGGACTGCATTCC
AGAGTTCATCTCAGGATTGTTTCCAGGCCCTGGTGACCTGGAGAACTGAAGTCGTGGGAGGTTAGTTTATAAGCC
AGCATCTGATTATTCATAGCCATGCTTGTGGGTGGTGAAATACCTTAACTACTTTGTACAGCACACCACGTTTT
CAGTAGCAATTTATGTGCTCACCAGTCACTTAGCGAAAGATGACTTCGTGAAGGTTTCAGCAAGGATAAGGGGAC
TCATTCAATGAATGACTGTCTGGACTGTTGTGAGGACTGCATCTCAACAGCCAGCATCTGGGGTCCCGACCTGA
TAGTTTGTGTGTGGGCATTGCCGGGTGCTCGCTCGTGGTAATGACTCTCCCCGAGGTTCTTTCTGTCCAGGCA
GAACAGGCATTTTTGCATTCTGAATAGGTATATTCTCGTACTTTTGGTTTGAATGTGGATGTGGGTAAATAACAG
ACCCGAATCTATTTGATCTTCCAGGTCACCTTGGGCTCTGTTTGTGATCCTGTTATCCATAGCCTTTAGAGAG
GACCTTCTGCTTTTAGCTTATTTTGTGCTAACTTTTTACAAACAAAGGGCTAATTTTAAATGTCAAGTGTGTC
AGTGGTCAGAAACCGTGTGTTTGTAGCGGGTGTGAGTGGCAGGTGGCTCTGCTGACCTGGTGGCTGGTGTGTCGG

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FIGURE 4616B

GAGGATTTAACCTGTGTGAGGGATTGGCCTAGAAACAACCTGTTGAGATAGTCTTGCCCCATAACCTGTCTCACA
CCGTAGTGTACGGCCCCCTCCCGCAAAGCITTGACAAAGAGTGGGTGGCCAAGCAGACCAAGAGGATGCTGGACA
TGAAGGTGAACCCCATCCAGGGCTTAGCCTCCAAGTGGGACTACGAAAAGAACGAGTGGAAGAAGTGAGAGATGC
TGGCCTGCGCCTGCACCTGCGCCTGGCTCTGTACCGCCATGCAACTCCATGCCTATTTACTGGAAACCTGTTAT
GCCAAACAGTTGTACCACTGCTAATAAATGACCAGTTTACCTG

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FIGURE 4617

GCCGTTTTCTTTCCTGGTGTCCCGTCGCGGCTTGGGACCCGGCAAGATGGGCAAGAAGGGCAAGAAGGAGAAGAA
GGGCCGCGGCGCGGAGAAGACGGCCGCAAGATGGAGAAGAAGGTGTCTAAGCGCTCGCGGAAGGAGGAGGAAGA
CCTGGAAGCGCTCATAGCCCATTTCAGACACTCGATGCCAAGAGGACTCAGACTGTGGAACCTCCGTGCCCCC
ACCTCACCAAGGTAAATGCCTCCCTCTCGGTTTCATCCTGAGAAAGATGAGTTAATCCTTTTTGGAGGTGAATA
TTTCAACGGCCAAAAAATTTTTGTATAACGAGCTCTATGTCTACAATACCAGAAAGGACACCTGGACCAAAGT
TGACATCCCCAGTCCACCTCCGAGGCGCTGTGCTCACCAGGCGGTGGTAGTGCCTCAAGGTGGCGGACAGCTGTG
GGTCTTTGGAGGGGAGTTTGCTCTCCCAACGGAGAGCAGTTCTACCACTACAAGGATCTCTGGGTCTGCAATTT
GGCCACCAAGACCTGGGAACAAGTCAAATCAACAGGCGGTCTTTCGGGTCTGGAGTGGACATCGGATGGTGGCCTG
GAAGAGACAATTGATCCTGTTTGGTGGCTTCCATGAAAGTACACGGGATTACATCTACTACAACGACGTGTATGC
CTTTAATCTGGACACCTTCACATGGAGCAAGCTGTCCCCGTGAGGACGGGGCCACACCCAGATCAGGCTGCCA
GATGTCCGTCACTCCCCAGGGCGGCATCGTCTGCTATGGGGGCTACTCGAAACAGAGAGTTAAGAAAGACGTGGA
CAAGGGCACACGGCACTCAGACATGTTCTGCTGAAGCCAGAGGACGGAAGAGAAGACAAGTGGGTTTGGACTCG
GATGAACCCCTTCGGGGGTCAAGCCCACCCACGGTCTGGCTTTTCCGTGGCCATGGCCCCGAATCACCAGACACT
GTTCTTCGGGGGTGTCTGTGACGAGGAAGAGGAGAGCCTGTGCGGCGAGTTCTTCAACGATCTGTACTTCTA
CGACGCCACCAGGAACCGTTGGTTTGAGGGACAGCTGAAGGGACCCAAGTCTGAAAAGAAGAAACGCAGGCGGGG
CAGAAAAGAGGAGCCCGAAGGTGGTAGCAGGCCGGCGTGTGGGGGAGCTGGCACCCAGGGGCCTGTGCAGCTGGT
CAAGGAGGTGGTGGCCGAGGATGGCACCGTGGTCAACATTAAGCAGGTGCTCACCGCGCCAGGCTCGGCGGGGCA
GCCCCGGTCTGAGGACGAAGACAGCCTTGAGGAGGCCGGCAGCCCCGCACCTGGGCCGTGTCCACGCTCCAACGC
CATGCTGGCTGTGAAGCATGGGGTGCTCTACGTCTATGGGGGATGTTTGAGGCCGGCGACCGCCAGGTCAACCT
CAGCGACCTGCACTGCCTGGACCTGCACAGGATGGAGGCGTGGAAGGCCTTGGTGGAGATGGACCCAGAACTCA
GGAGTGGCTGGAGGAGACGGACTCGGAAGAGGACAGTGAGGAGGTTGAGGGCGCCGAGGGTGGGGTCGACGACGA
AGACAGCGGAGAGGAGAGCGGTGCGGAGGACTGAGAAGAGCCCCCTGCCAGGGGCGCCTGGCAAGTGCTGTGCCA
CGTCCGCCCAGGACCCAGCCGTGTTGAGTGAAGCTCTTGGGGCCAGCGTGCGTCTTGACGCACAGGAGAGAGCTG
AAGGTGGGTGGCCAGGCCAGGGTGTGAACCTTCTCCCATGGTTTAGTCTCTGACGCGGCACTGGGCCGGAAGTT
CAACTGAGTGCAGTGCAGGTGGATTCCCTCAGCAGCCTGTGTGTTGTGTGAAATAAATTGGACTTGAAACAAGAA
AAAAAAAAAAAAA

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FIGURE 4618

MGKKGKKEKKGRGAEKTAAMEKKVSKRSRKEEEDLEALIAHFQTLDAKRTQTVELPCPPPSPRLNASLSVHPEK
DELILFGGEYFNGQKTFLYNELYVYNTRKDTWIKVDIPSPPPRRCAHQAVVVPQGGGQLWVFGGEFASPNGEQFY
HYKDLWVLHLATKTWEQVKSTGGPSGRSGHRMVAWKRQLILFGGFHESTRDYIYYNDVYAFNLDFTWSKLSPSG
TGPTPRSGCQMSVTPQGGIVVYGGYSKQRVKKDVKGTRHSDMFLLKPEDGREDKWVWTRMNP SGVKPTPRSGFS
VAMAPNHQTLFFGGVCDEEEESLSGEFFNDLYFYDATRNRWFEGQLKGPKEKKRRRGRKEEPEGGSRPACGG
AGTQGPVQLVKEVVAEDGTVVTIKQVLTAPGSAGQPRSEDEDSLEEAGSPAPGPCPRSNAMLAVKHGVLYVYGGM
FEAGDRQVTLSDLHCLDLHRMEAWKALVEMDPETQEWLEETDSEEDSEEVEGAEGGVDDSDSGEESGAED

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FIGURE 4619

GGCTGTGACTAGCGGGCCGGCCCGGGCCAGGACAGCGGGCGGGCGGGCGGGCCCTGGCCCCGGGATGGCTAT
GTTCCGCAGCCTGGTGGCCTCGGCTCAGCAGCGGCAGCCGCCGGCCGGGCGGGCGGGCGGGCGACAGCGGCCTGGA
GGCGCAGTACACCTGCCCCATCTGCCTGGAGGTCTATCACCGGCCCGTGGCCATCGGCAGCTGCGGCCACACGTT
CTGCGGGGAGTGTCTCCAGCCCTGCCTGCAGGTGCCATCCCCGCTGTGCCCCTGTGCCGCATGCCCTTCGACCC
CAAGAAGGTGGACAAGGCCACCCACGTGGAGAAGCAGCTCTCATCTACAAAGCGCCCTGTGAGGCTGCAACAA
AAAGGTGACCCTGGCAAAGATGAGAGTGCACATTTCTGCTCTGCCTGAAGGTCCAGGAGCAGATGGCCAACCTGCC
CAAGTTCGTCCCCGTGGTGGCCACATCACAGCCTATCCCCAGCAACATCCCCAACAGGTCCACCTTCGCTGCC
GTACTGTGGTGGCCGCAACCTGGACCAGCAGGAGCTGGTGAAGCACTGTGTGGAAGCCACCGCAGCGACCCCCAA
CCGCGTGGTGTGCCCCATCTGCTCGGCAATGCCCTGGGGGGACCCAGCTACAAGAGCGCCAACCTTCCTGCAGCA
CCTGCTTCACCGACACAAGTTCTCCTACGACACCTTTGTGGACTACAGTATTGACGAGGAGGCCGCTTCAGGC
TGCTCTGGCCCTGTCTCTCTCTGAGAACTTGAAAGGGGAGCGCAGCCACCCGCTGCGTCTGGGGTCAGGGATGTCC
CCGCTCCTGTGTGCGACCTGGCACCTGCTCGGGAGTGCACCTCACCGGACTGAGCTCACAGGAGGAGCCTGCACC
CGCGCAGAAGGGGAGCCGGGGCCGAGCCTCCGGGCCTGAATACGGGCCAGCCGCCGAGGCCGCCAGAGCAGGGCC
GCCTGGTCCCACCGGCGTCGCTGGGTTCCTCGGTGCTTCTGGCCGAGCAGGCGGCCTACTTGGGCAGGGCTGGAC
GCTGAGACCTGGAGCTGCCACCGTCTCTTCAAGCCATGATACCCCTCGTGGGAAGAAGGGACCGACGCGCAGT
CGCGGCTGCGCAGTCGAGCCCGGGAGGAACCCAGGCTGCTGCCCTGGCCAGCCCGACCTGCCCGGGCCCCACTT
CCACCTTGCGCATTGGTACTGGCTTTTGTGATACTTAGGAACCTGGCATCTTTCTATATTATCCAGTGTGAT
AATCTTTTCAGTTTTATAGAGCAAAGACAGAGCAGTTACTCTTCATATTGCAATATCTGTGTTTGACTAGGAAT
AATAGTATTTTATGGAACATTTACAAAATTATATTTTAAAGAAAAAATCAAAAACAAGCATTGGGGGATTGGG
GCAAGGATGGAAGGAGCAGTGGGGCAGCTGCCAGAGCTCAGGCGAGCCATGGGGTCTGCTGTGGGGTCTGCCCTG
GCCACCCACTGTGTGCTGGGTCTTGGGTTTGTACGTTTCTTTGATGACCAGGAAGAAATCCCAGCACCCC
AGCCACAGGCTGTGGCTGCTCCAGCAGAGGCGGGGCCGAGAGAAGGGGCTCCTCCACCCAGAGTCTGGCC
TTGGCCCGCTGTACCTTCAAAGCTGACTGTGCCCCGCTGCGGGAGGGGACGGCACCCAGTGGTGGCAGAGCTT
GGGGGCTGGGCAGGGGCCGCTTGGCGGGCCGGGCAACACGTCAACATTCTTTCTGTTCTTGGCATTAAATTAT
TGCTGTCTTTTTTTTTAAAAAAAAGTTTAAATAAAATGTCTCAGAGC

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FIGURE 4620

MAMFRSLVASAQQRQPPAGPAGGDSGLEAQYTCPICLEVYHRPVAIGSCGHTFCGECLQPCLQVPSPLCPLCRLP
FDPKKVDKATHVEKQLSSYKAPCRGCNKKVTLAKMRVHISSCLKVQEQMANCPKFVPVPTSQPIPSNIPNRSTF
ACPYCGARNLDQQELVKHCVESHRSDPNRVVCPICSAMPWGDPSYKSANFLQHLLHRHKFSYDTFVDYSIDEEAA
FQAALALSLEN

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FIGURE 4621

CTCCGACGTCATCGGGGCGCGCCCTCGCGCTGTGCGCGCCACAGTCTGCGACGGGACCCGGCGTGCCCATGTGTC
AGGTGGGCGAGGACTACGGGGAGCCGGCGCCTGAGGAGCCGCCCCGGCGCCGCGGGCCAGGGACTGTTTCAAGG
CCTTCTACGTCCACAAGTTTCAAGAGCCATGCTGGGCAAGAACCGGCTCATCTTTCCAGGCGAGAAGGTGCTCTTGG
CGTGGTCTGGGGGGCCTTTCGTCCAGCTCCATGGTCTGGCAGGTTCTTGAGGGCCTGAGCCAAGATTCTGCCAAAA
GACTGCGCTTTGTGGCAGGAGTCATCTTTGTTGACGAGGGAGCAGCCTGTGGCCAGAGCCTAGAGGAGAGATCAA
AGACCCTGGCCGAAGTGAAGCCCATTCTGCAAGCAACTGGGTTCCCATGGCATGTGGTGGCCTTAGAGGAGGTGT
TCAGCCTGCCACCGTCGGTGCTTTGGTGCTCTGCCCAGGAGCTAGTGGGATCCGAGGGGGCCTACAAGGCGGGCCG
TGGACAGCTTCTCCAGCAGCAGCATGTGCTGGGGGCCGGGGGTGGTCTGGCCCCGACTCAAGGGGAGGAACAGC
CACCCAGCCCCCGCTGGACCCCCAGAACCTGGCAAGACCGCCTGCCCCCTGCCCAGACTGAGGCTCTTTCCCAAC
TGTTCTGCTCAGTGAGGACACTGACTGCCAAGGAGGAGCTTCTGCAGACCCTGCGGACCCACCTGATCCTCCACA
TGGCCCGAGCCACGGCTACTCCAAGGTATGACTGGGGACAGCTGCACACGCTTGGCTATCAAGCTCATGACCA
ACCTGGCGCTGGGTGCGAGGGGCCTTCTGGCCTGGGATACGGGCTTCTCGGATGAGCGGCACGGGGACGTGGTGG
TGGTGCGGCCCATGCGGGACCACACCCTGAAGGAGGTGCTTTCTACAACCGCCTGTTCTCTGTTCTTCTGTCT
TCACACCAGCCGTCGACACCAAGGCCCTGAAAAGGCCAGCATCCACCGGCTGATGGAGGCCTTCATCCTCAGGC
TGCAGACCCAGTTCCCTCCACTGTCAGCACTGTGTACAGGACAAGTGAGAAGCTGGTGAAGGGCCCCCGGGATG
GCCCTGCTGCTGGCGACTCCGGCCCCCGCTGCCTCCTCTGCATGTGTGCCCTGGACGTGACGCGCTGACAGTG
CCACGGCTTTTGGGGCTCAGACCTCCTCGCGTCTCTCCCAGATGCAGTCACCCATCCCCCTGACTGAGACCCGGA
CACCCCGGGGCCCTGCTGTTCTCCAGGGGTGGGCTGGGCCCAGCGCTGCGGCCAGGGGGCCTGTAGGAGGGAGG
ACCCCAAGCCTGCATTGAGGAGCAGCTGTGCTACAGCTGCCGCGTGAACATGAAGGACTTGCCCTCACTGGACC
CCCTGCCGCGTACATCCTGGCTGAGGCCCAGCTCCGCACACAGAGGGCCTGGGGCTTGAGGAGATCCGGGACT
GTCTGATTGAGGACAGTGACGACGAGGCGGGCCAGAGCTGAGCGTGAGGACGTGCTTGCCGGGACAGCAGGCAGT
GGCCACCTGGTACACCACACTGGAGCCGGAAGGCAAGGACGGGGGACTGGCCTCTGATTGTCCATTTGTATAAAT
AAAACATTTTTTAATT

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FIGURE 4622

CGCGCACTCCGCCGCCATGGAGCAGCGCCGCGTCACCGACTTCTTCGCGCGCCGCCGCCCGGGCCCCCGCAT
CGCGGCGCCCAAGCTGGCCTGCCGCACCCCCAGCCCCGCCAGGCCCGCACTCCGCGCCCCGGCCTCCGCTACCAG
TGGCAGCCGCAAGCGCGCCCCGCCCGCCCGCCCCCGGACGCGACCAGGCCAGGACACCGGCCCGCAGGAGACT
GCGGCTGTGCGGTGGACGAGGTTTCCAGCCCCAGTACCCCCGAGGCCCCAGACATCCCAGCCTGCCCTTCTCCGGG
CCAGAAGATAAAGAAATCCACCCCCGGCAGCAGGTCAGCCGCCCCACCTGACATCCGCGCAGGACCAGGACACCAT
CTCTGAGCTTGCCTCATGCCTGCAACGGGGCCCGGGAGCTGGGGGCAAGAGTCCGGGCGCTGAAGGCCAGTGCCCA
GGATGCTGGGGAGTCTTGCACCCCAGAGGCCGAGGGCCGCCCTGAGGAGCCATGTGGCAGAAAGGCGCCCGCCTA
CCAGCGCTTCCATGCCCTGGCCCAGCCCCGGCCTGCCGGGACTCGTGCTGCCCTACAAGTACCAGGTGCTGGCGGA
GATGTTCCGCAGCATGGACACCATCGTGGGCATGCTCCACAACCGCTCCGAGACGCCACCTTTGCCAAGGTCCA
GCGGGGCGTCCAGGACATGATGCGTAGGGCTTTTGAGGAGTGCAATGTTGGCCAGATCAAAAACCGTGTACCCGGC
CTCCTACCGCTTCCGCCAGGAGCGCAGTGTCCCCACCTTCAAGGATGGCACCAGGAGGTGAGATTACAGCTCAC
CATCGAGCCACTGCTGGAGCAGGAGGCTGACGGAGCAGCCCCCAGCTCACGGCCTCGCGCCTCCTGCAGCGACG
GCAGATCTTCAGCCAGAAGCTGGTGGAGCATGTCAAGGAGCACCACAAGGCCTTCCTGGCCTCCCTGAGCCCCGC
CATGGTGGTGCCGGAGGACCAGCTGACCCGCTGGCACCCGCGCTTCAACGTGGATGAAGTACCCGACATCGAGCC
GGCCGCGCTGCCCCAGCCACCCGCCACGGAGAAGCTCACCCTGCTCAGGAGGTGCTGGCCCGGGCCCGCAACCT
GATTTACCCAGGATGGAGAAGGCCTTGAGTCAATTGGCCCTGCGCTCTGCTGCGCCAGCAGCCCCGGGTCTCC
CAGGCCAGCACTGCCGGCTACCCACCCAGCCACCCCGCCTGCAGCCTCTCCCAGTGCTCTGAAGGGGGTGTCCCA
GGATCTGCTGGAGCGGATCCGAGCCAAGGAGGCACAGAAGCAGCTGGCACAGATGACGCGGTGCCCGGAGCAGGA
GCAGCGGCTGCAGCGCTTAGAACGGCTGCCTGAGCTGGCCCGCGTGCTGCGGAGCGTCTTTGTGTCCGAACGCAA
GCCTGCGCTCAGCATGGAGGTGGCCTGTGCCAGGATGGTGGGCAGCTGTTGTACTATCATGAGCCCTGGGGAAAT
GGAGAAGCACCTGCTGCTCCTCTCCGAGCTGCTGCCGGACTGGCTCAGCCTCCACCGCATCCGCACCGACACCTA
CGTCAAGCTGGACAAGGCCGCGGACCTCGCCACATCACTGCACGCTGGCCACCAGACACGTGCTGAGGAGGG
GCTGTGAGCCTGGGGGCCACTGTGGACAGACGTGGGCTTCAGAAGCTCGCTGGCCTGGGCCACAGCATTTTCT
TTTATGAACATGATACTTTGGCCTTCCTTTCCCAGCGCCCTGAGGGCCAGAGGCAGATGTGGGCTGCAGGC
TGCACAGCCCAGGGTCTCTGGCTGCGGGCGGTGGGCCCTTCATGGGGCTCACCTGGTGATTACATTAAACC
GGTTTCTGTGGGC

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FIGURE 4623

MFRSMDTIVGMLHNRSETPTFAKVQRGVQDMMRRRFEECNVGQIKTVYPASYRFRQERSVPTFKDGTTRSDYQLT
IEPLLEQEADGAAPQLTASRLQRRQIFSQKLVEHVKEHHKAFSLASLPAMVVPEDQLTRWHPRFNVDEVDPDIEP
AALPQPPATEKLTTAQEVLARARNLISPRMEKALSQALALRSAAPSSPGSPRPALPATPPATPPAASPSALKGVSQ
DLLERIRAKEAQKQLAQMTRCPEQEQLRQLERLPELARVLRVSVSEKRPALSMEVACARMVGSCCTIMSPGEM
EKHLLLLSELLPDWLSLHRIRTDITYVKLDKAADLAHITARLAHQTRAEGL

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FIGURE 4624

AGCCCGGGGCAGCCAGCAGTACCGGGCCCTGACCGTGCCCGAGCTCAGCCAGCAGATGTTTCGATGCCAAGAACAT
GATGGCGCCGCAATGTCATGAAGGAGGTGGACGAGCAGATGCTGGCCATCCAGAGCAAGAACAGCAGCTACTTCG
TGGAGTGGATCCCCAACACGTGAAGGTGGCCGTGTGTGACATCCCGCCCCGCGGCCCTCAAGATGTCCTCCACCT
TCATCGGGAACAGCACGGCCATCCAGGAGCTGTTCAAGCGCATCTCCGAGCAGTTCACGGCCATGTTCCGGCGCA
AGGCCTTCCTGCACTGGTACACGGGCGAGGGCATGGACGAGATGGAGTTCACCGAGGCCGAGAGCAACATGAACG
ACCTGGTGTCCGAGTACCAGCAGTACCAGGACGCCACGGCCGAGGAAGAGGGCGAGATGTACGAAGACGACGAGG
AGGAGTCGGAGGCCAGGGCCCCAAGTGAAGCTGCTCGCAGCTGGAGTGAGAGGCAGGTGGCGGCCGGGGCCGAA
GCCAGCAGTGTCTAAACCCCCGGAGCCATCTTGCTGCCGACACCCTGCTTTCCCCTCGCCCTAGGGCTCCCTTGC
CGCCCTCCTGCAGTATTTATGGCC

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FIGURE 4625

MAVQGSQRRLGSLNSTPTAIPQLGLAANQTGARCLEVSISDGLFSLGLVSLVENALVVATIAKNRNLHSPMYC
FICCLALSDLLVSGSNVLETAVILLLEAGALVARAAVLQQLDNVIDVITCSSMLSSLCFLGAIIVDRYISIFYAL
RYHSIVTLPRARRAVAAIWVASVVFSTLFIAYYDHVAVLLCLVFFLAMLVLMVLYVHMLARACQHAQGIARLH
KRQRPVHQGFGLKGAVTLTILLGIFFLCWGPFFLHLLIIVLCPEHPTCGCIFKNFNLFLALIICNAIIDPLIYAF
HSQELRRTLKEVLTCSQDRALVSWDVKSLGGSVCQELLPQQPQEKGLCDQKASSTALQRLLOKEFWEVISDEH
GIDPSGNYVGSDSLQLERISVYYNEASSHKYVPRAILVDLEPGTMDSVRSGAFGHLFRPDNFIQSGAGNNWAK
GHYTEGAELVDSVLDVVRKECENCDCLOGFQLTHSLGGGTGSGMGTLISKVREEYPDRIMNTFSVVPSPKVS
VVEPYNATLSIHQLVENTDETYCIDNEALYDLCFRTLKLATPTYGDLNHLVSATMSGVTTSLRFPQQLNADLRKL
AVNMVFPFRLHFFMPGFAPLTARGSQYRALTVPELTQQMFDAKNMMAACDPRHGRYLTVATVFRGRMSMKEVDE
QMLAIQSKNSSYFVEWIPNNVKVAVCDIPPRGLKMSSTFIGNSTAIQELFKRISEQFTAMFRRKAFLHWYTGE
DEMEFTEAESNMNDLVSEYQQYQDATAEEEGEMYEDDEESEAQGP

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FIGURE 4626

GGAGAGGGTGTGAGGGCAGATCTGGGGGTGCCAGATGGAAGGAGGCAGGCATGGGGGACACCCAAGGCCCCCTG
GCAGCACCATGAACTAAGCAGGACACCTGGAGGGGAAGAACTGTGGGGACCTGGAGGCCTCCAACGACTCCTTCC
TGCTTCCTGGACAGGACTATGGCTGTGCAGGGATCCCAGAGAAGACTTCTGGGCTCCCTCAACTCCACCCCCACA
GCCATCCCCCAGCTGGGGCTGGCTGCCAACCAGACAGGAGCCCGGTGCCTGGAGGTGTCCATCTCTGACGGGCTC
TTCCTCAGCCTGGGGCTGGTGAGCTTGGTGGAGAACGCGCTGGTGGTGGCCACCATCGCCAAGAACCGBAACCTG
CACTCACCCATGTACTGCTTCATCTGCTGCCTGGCCTTGTCGGACCTGCTGGTGAGCGGGAGCAACGTGCTGGAG
ACGGCCGTCATCCTCCTGCTGGAGGCCGGTGCACTGGTGGCCCGGGCTGCGGTGCTGCAGCAGCTGGACAATGTC
ATTGACGTGATCACCTGCAGCTCCATGCTGTCCAGCCTCTGCTTCCTGGGCGCCATCGCCGTGGACCGCTACATC
TCCATCTTCTACGCACTGCGCTACCACAGCATCGTGACCTTGCCGCGGGCGCGGCAAGCCGTTGCGGCCATCTGG
GTGGCCAGTGTCGTCTTCAGCACGCTCTTCATCGCCTACTACGACCACGTGGCCGTCCTGCTGTGCCTCGTGGTC
TTCCTCCTGGCTATGCTGGTGCTCATGGCCGTGCTGTACGTCCACATGCTGGCCCGGGCCTGCCAGCACGCCCAG
GGCATCGCCCGGCTCCACAAGAGGCAGCGCCCGGTCCACCAGGGCTTTGGCCTTAAAGGCGCTGTACCCTCACC
ATCCTGCTGGGCATTTTCTCCTCTGCTGGGGCCCCCTTCTTCCTGCATCTCACACTCATCGTCCCTCTGCCCCGAG
CACCCACGTGCGGCTGCATCTTCAAGAACTTCAACCTCTTTCTCGCCCTCATCATCTGCAATGCCATCATCGAC
CCCCTCATCTACGCCCTTCCACAGCCAGGAGCTCCGAGGACGCTCAAGGAGGTGCTGACATGCTCCTGGTAGCG
CGGTGCACGCGCTTTAAGTGTGCTGGGCAGAGGGAGGTGGTGATATTGTGTGGTCTGGTTCCCTGTGTGACCCTGG
GCAGTTCCTTACCTCCCTGGTCCCCGTTTGTCAAAGAGGATGGACTAAATGATCTCTGAAAGTGTGAAG

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FIGURE 4627

MAVQGSQRRLLGSLNSTPTAIPQLGLAANQTGARCLEVSISDGLFSLGLVSLVENALVVATIAKNRNLHSPMYC
FICCLALSDLLVSGSNVLETAVILLEAGALVARAAVLQQLDNVIDVITCSSMLSSLCFLGAIADVDRYISIFYAL
RYHSIVTLPRARQAVAAIWVASVVFSTLFIAYYDHVAVLLCLVVFFLAMLVLMVLYVHMLARACQHAQGIARLH
KRQRPVHQGFGLKGAVTLTILLGIFFLCWGPFFLHLLTLIVLCPEHPTCGCIFKNFNLFLALIICNAIIDPLIYAF
HSQELRRTLKEVLTCW

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FIGURE 4628

GCATAGGCTAGGTAGCGAGGCCGCGTGTGAATCGGCCGAGGCCGAGTTTCTGCGCTTCCTTCTCCCTCTCTCCAG
ACGTGCTGGTTCGTTTCGGTCCTATGTCGCGCCGGGCCCTCCGGAGGCTGAGGGGGGAACAGCGCGGCCAGGAGCCC
CTCGGGCCCCGGCGCCTTGCATTTTCGATCTCCGTGATGACGATGACGCGGAAGAAGAAGGGCCCAAGCGGGAGCTT
GGTGTCCGGCGTCCCGGGGGCGCAGGGAAGGAGGGCGTCCGAGTCAACAACCGCTTCGAGCTGATAAACATTGAC
GATCTTGAGGATGACCCTGTGGTGAACGGGGAGAGGTCTGGCTGTGCGCTCACAGACGCTGTGGCACCAGGGAAC
AAAGGAAGGGGTGACGCTGGAAACACAGAGAGCAAGACGGATGGAGATGACACCGAGACAGTGGCCTCAGAGCAG
TCTCATGCAAGTGGCAAACCTCCGGAAGAAGAAAAAACAAGAAAAGCAGCACGGGAGAAGCATCG
GAAAACGGACTAGAAGATATCGATCGCATCTTAGAGAGGATTGAGGACAGCACTGGGTGAACCGTCCCGGCCCA
GCTCCCTGAGCTCCAGGAAGCACGTTCTCTACGTGGAGCACAGACACTTGAATCCAGACACAGAACTGAAAAGG
TATTTTGGTGCCCGGGCAATCCTGGGGGAGCAAAGGCCACGGCAGAGACAACGTGTGTACCCCAAGTGCACATGG
CTGACCACCCCTAAAAGCACCTGGCCCCGCTACAGCAAACAGGCTCTGTCCATGCGGCTGCTGGAATCAAAAAA
GGCCTCTCCTTCTTTGCGTTTGAGCACAGTGAGGAGTACCAGCAGGCTCAGCACAGTTCTTGGTGGCCGTGGAG
TCTATGGAGCCGAACAACATCGTGGTTCTGCTCCAGACGAGCCCTTACCAGTTGACTCACTCCTGCAGCTCAGC
GATGCCTGCCGCTTCAAGAGGATCAGGAGATGGCTCGAGACCTCGTAGAGAGAGCGCTGTACAGCATGGAATGT
GCGTTCACCCCTGTTCAGTCTCACCAGTGGGGCCTGCCGGCTGGATTACCGCAGACCCGAGAACAGGAGCTTC
TACCTGGCCCTCTACAAGCAGATGAGCTTCTTGGAGAAGCGAGGCTGCCCGCGCACGGCGCTGGAGTACTGCAAG
CTCATCCTGAGTCTCGAGCCGGATGAGGACCCCTCTGCTGCTGCTGCTCATCGACACCTGGCCTTGGCGGCC
CGGAACCTACGAGTACCTGATCCGCCCTCTTCCAGGAGTGGGAGGCTCATCGGAACCTGTCCAGCTCCCTAATTTT
GCCTTCTCTGTTCCACTGGCGTATTTCTCTGCTGAGCCAGCAGACAGACCTCCCTGAGTGTGAGCAGAGCTCTGCC
AGGCAGAAGGCCTCTCTCCTGATACAGCAGGCGCTCACCATGTTCCCTGGAGTCCTCCTGCCCTGCTCGAGTCT
TGCACTGTGCGGCCCGACGCCAGCGTTTCCAGTCACCGCTTCTTTGGACCCAATGCTGAAATAAGCCAGCCCCCT
GCCCTGAGCCAGCTGGTGAACCTGTACCTTGGGAGGTCACACTTTCTCTGGAAGAGCCCGCCACCATGAGCTGG
CTGGAGGAGAACGTCCACGAGGTTCTGCAAGCAGTGGACGCCGGGGACCCAGCCGTGGAAGCCTGTGAGAACC GG
CGGAAGGTGCTCTACCAGCGTGCACCCAGGAATATCCACCGCCATGTGATCCTCTCTGAGATCAAGGAAGCCGTC
GCTGCCCTGCCCCCGGACGTGACCACGAGTCTGTGATGGGGTTTGATCCTCTGCCTCCTTCGGACACAATCTAC
TCCTACGTGAGGCCAGAGAGGCTAAGTCTATCAGCCATGGAACACCATTTGCTCTCTTCTCCGGTCACTGTTG
CCAACTATAACCATGGAGGGGGAGAGGCCCGAGGAAGGAGTGGCTGGGGGTCTGAACCGCAACCAGGGCCTGAAC
AGGCTGATGCTGGCTGTGCGCGACATGATGGCCAACCTTCACCTCAACGACCTGGAGGCGCCGACGAGGACGAC
GCTGAGGGGGAGGGGGAGTGGGACTGAGCGTCCGAGAGGTGACCGAAAAGCCGTATGATGATGTTCCCGATTTT
TCTGTTGGTCGGAGTCGGCCAGTTGCCTGAAGTAGGGAAGCTGAGTGTGTCGCTCCCTGGTCCACTGTTTCTCCT
ATAAATGTAAATGGGTC

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FIGURE 4629

MSRRALRRLRGEQRGQEPLGPGALHFDLRDDDDAEEEGPKRELGVRRPGGAGKEGVRVNNRFELINIDDLEDDPV
VNGERSGCALTDAPGNKGRGQRGNTESKTDGDDTETVPSEQSHASGKLRKKKKQKNKKSSTGEASENGLEDI
DRILERIEDSTGLNRPGPAPLSSRKHVLYVEHRHLNPDTELKRYFGARAILGEQRPRQRQRVYPKCTWLTPKST
WPRYSKPGLSMRLLSEKGLSFFAFEHSEYQQAQHKFLVAVESMEPNIVVLLQTSPYHVDSSLQLSDACRFQE
DQEMARDLVERALYSMECAFHPLFSLTSGACRLDYRRPENRSFYALALYKQMSFLEKRGCPRTALEYCKLILSLEP
DEDPLCMLLLIDHLALRARNYEYLIRLFQEWEAHRNLSQLPNFAFSVPLAYFLLSQQTDLPECEQSSARQKASLL
IQQALTMFPGVLLPLLESCSVRPDASVSSHRFFGPNAEISQPPALSQLVNLYLGRSHFLWKEPATMSWLEENVHE
VLQAVDAGDPAVEACENRRKVLYQRAPRNIHRHVILSEIKEAVAALPPDVTQTQSVMGFDPLPPSDTIYSYVRPER
LSPISHGNTIALFFRSLLPNYTMGERPEEGVAGGLNRNQGLNRLMLAVRDMANFHLNDLEAPHEDDAEGEGEW
D

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FIGURE 4630

ATGGTGACGCACGCCGCTGGCGCGAGGACCTTTTGTGAGGAGCAAAAGAAGGGATCCACCTATTTCAGTTCCAAAA
TCTAAGGAGAAGTTGATGGAGAAGCATTCCCAGGAAGCCAGGCAGGCAGACAGGGAGTCGGAGAAGCCTGTGGAC
AGCCTCCACCCGGGGGCCGGGACAGCCAAGCACCCGCCCGCCGGCAGCTTCGCTGGAAGAGAAACCTGATGTAAAG
CAAAAGTCCAGCAGGAAGAAAGTGGTCGTTCCACAGATCATCATCACGCGAGCGTCGAATGAGACGCTAGTCAGT
TGCAGTTCCAGCGGGAGTGACCAGCAGAGAACCATTTCGGGAGCCGGAGGACTGGGGCCCCCTACCGCGGCACAGG
AACCCAGTACAGCAGACGCCTATAATTACATCTCAAAGAAT**TAA**ACAAGCACCTTTGCATGGCACTCGCTACTC
CCTGCGATAGGCGTCTCGGGAACAGCCGCCTCACCCCTGTGAGAAGCCGAGGCCCTTCTCCAGTGCTCTCGGGGA
GGTTGCACCAGGCCACCCACCCCTGTGAGAACTGCAGCCCCCTTCTCCAGTGCTTTTCGGGGAGGGTGCACCAG
GCCCCCCCCACCTTGTGAGAAGCCGTGGCCCCCTTCTCCAGTGCTCTCAGGGAGGGTGCACCAGGCCCTGCCCCG
CCGTGAGAACTGCAGTCCCCTTCTCCAGTGCTCTCGGGGAGGGTGCACCAGGCCACCCACCCCTGTGAGAACC
TGCAGCCCCCTTCTCCAATGCTCTCGGGGAGGGTACACCAGGGTTGCCACCCCTGTGAGAAGCCACCGCCCCCT
TCTCCAGTGCTCTCGGGGAGGGTGCACCAGGGCTGCCCCACGCTGTAAGAAGCCGCCGCCCTTCTCCAGTGCT
CTCCAGCCCCGCCACCCCTGTGAGAAGCCATGGCCCCCTTCTCCAGTGCTTTTGGGGAGGGTGCACCAGGGCCACC
CCACCCCTGTGAGAAGCCGTGGCCCCCTTCTCCAGTGCTTTTCGGGGAGGGTACACCAGGCCGCCGCCACCCCTGTGA
GAAGCCGTGGCCCCCTTCTCCCGTGCTCTCAGGGAGGGTGCACCAGGCCCTGCCCCCGCTTGAGAACTGCAGCC
CCCTTCTCCAGTGCTCTGGGGGAGGGTGCACCAGGCCCTGCCACCCCTGTGAGAACTGCACCCCTTCTCCAGTG
CTCTCGGGGAGGGTGCACCAGGCCGCCGCCACCCCTGTGAGAAGCCGCAGCCCGTCTCCATTGCCATTTGGTCCT
GCCTTCCCCAGAGCTGCTAGCAGCTCGGTTCGAGGCAAGAGTGACTGGCTCAGAGAGCGAGCTTTGTGGTATTGAT
AAATGAATAAATTAGTATGTTTCATGTTGGAAGTGGCTGGCTCTGCAGAGTGATGGACAGCAGGTGGCATCTTACA
TTGTGATTTGTGGTGCACAGTTAAACACTTCCCTTCGTTTCAGAAGGAGACAATGTGAATACTTGAAATTATA
GTGAATAAGATGCCTCCCAAACTTGAGGAAAAGGTCAGATTCTAAGAGCTAAACGTTAAGATGTAATGTTCCAGA
ACAAAGAGGCCCAGAGTCACTGAACGGGGCCCCAGGGCTCCTAGCTTGAGTGTAATCTGAGTCAGCTTATGAAAA
GGCCCCAAAGAAGAAAGTGAATGTGTGCTGGGCACATGGGACAGCCATGGCACTGAGACTTTGGAAGTGGCCTT
GCCAGCGCTGTCTGTCTTTCTGGCCACAGATGAGGGCTCCTGATTGTGGAAGGCCACGGAAGGGACCTGAACA
CGATGGCACGAGACAAGTTATCTCCTGTGACTGCTCCTCTCCAGCAACCCTCAGCTCAGGCTAGACTTTCCCCCT
GTGTTGAGAATGCCCTGCCCTGTGTGGAAGCCTGATGCATTTAGTGACAGTGTTAGCTTTGTTAGTTTCTAGT
CTGGCCAGCAGGCTTTCCATGTGATCTGCCATTGGCTTGCTTCAGTGGCCAGTGGAGCCAGGGGTGTCCACCAGA
GTCTTGACACAGACTTCTGAGGTGGCAGCGGGAGGGAGCCTGCTCCCTGCCACACACGTACAATTTCTAATCCA
TACAGGCCTATGTAGTATATACACATACGCAGAGCCTTAGGAATTGTGAAAGGCCAATCAAACTTGGGGCCC
TAATTTCACTCTGCC

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FIGURE 4631

MVTHAAGARTFCEEQKKGSTYSVPKSKEKLMKHSQEARQADRESEKPVDSLHPGAGTAKHPPFAASLEEKPDVK
QKSSRKKVVVPQIIITRASNETLVSCSSSGSDQRTIREPEDWGPYRRHRNPSTADAYNSHLKE

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FIGURE 4632

AGCGACTCACAAAGGTCCTCGCGCCAGCGGCGTGCGTCACCATGGCGACCGCGCGCCGCGCAGCCGCGCCCCGC
CCCTCTGGCGGGACCGGCCACCATCCTCTCGCGAGAGCATCCCGTGCGACCGGAAGTGGGGCGGCGACCCCGGAA
GTCCCCGCGGGTGACGCTTGGTCGGTTCGATCGCCGCCGGGACCTGACACCGCCCGGAGTTGGCGTCCCTTCTC
CCTCTCCGAGTGCTGCTCCTGTCTATTGTGGCCATGGACGTTACGGCGAAGCAGCTGGAGAAGCTGGCCAAGAAG
GCGGAGAAGGACTCCAAGGCGGAGCAGGCCAAAGTGAAGAAGGCCCTTCTGCAGAAAAATGTAGAGTGTGCCCGT
GTGTATGCCGAGAACGCCATCCGCAAGAAGAACGAAGGTGTGAAGTGGCTTCGGATGGCGTCCCGCGTAGACGCA
GTGGCCTCCAAGGTGCAGACAGCTGTGACTATGAAGGGGTGACCAAGAATATGGCCAGGTGACCAAGGCCCTG
GACAAGGCCCTGAGCACCATGGACCTGCAGAAGGTCTCCTCAGTGATGGACAGGTTTCGAGCAGCAGGTGCAGAAC
CTGGACGTCCATACATCGGTGATGGAGGACTCCATGAGCTCGGCCACCACCCTGACCACGCCGAGGAGCAGGTG
GACAGCCTCATTCAGATCGCCGAGGAGAATGGCCTGGAGGTGCTGGACCAGCTCAGCCAGCTGCCCGAGGGC
GCCTCTGCCGTGGGCGAGAGCTCTGTGCGCAGCCAGGAGGACCAGCTGTACGGAGGTTGGCCGCCTTGAGGAAC
TAGCCGTGCCCCGCCGCTGTGCACCGCCTCTGCCCCGTGATGTGCTGGAAGGCTCCTGTCTCTCCCCACCGCGT
CTTGCCCTTTGTGCTGACCCCGCGGGCTGCGGCCGAGCCACTCTGCGTCTCTCACCTGCCAGGCCTGCGTGGC
CTTAGGGTTGTCTCTTTAGGTTGGGCGGTGGGTCTGTGTCTTGGTGTGTAGTCTTGTCAAATTTCTGGG
GGTGATTTCTGTGACTCTGGGCCCACAGCGGGGAGGCCAAGAGGGGCCCTGTGGACTTTACCCAGCACTGTGGG
GGCCTTCAGACTCTGGGGCAGCAGACATGCTGCTTCCCATCAGCCAGAGGGGGTCAAGGGCTGCCCTGTTGCCAAA
CAACTCCCTGAGGCCTCTCCGCACCACCTCAGCGGGCAGGAGGTCCCACCATGTGGACAGACATAGCCCAAGGAG
GCACCACAGGTCTATGTGTGCTGGGGGATGTCAAGGTGCCACCCAACGCTGTCTTGGTGGTATTTACAATGACATC
CTCCTCTCCATCACTCCAGGGGTGGTGTCTCGGCCGCCCTACCAGCTGGCTGAGCCCCCTGGCCTCCTGCGCT
CCCTCACTTCCCTCAGTTCCCAAAGCTGCCCAGTCCATGGGGACAGAACCCTCACTCAGATCCACATTCAAGTGT
GCCACCCCTGCAGTCTTCATCCTCACTCAGCTGCTGCCTCTGGAGGTGCCCTTGGCCACATGTGCTGTGCTGTTT
GTCTCCTCGACAGGGAGCCTGTCCACCAGCAGGCTGCGGTCCCAGCGGGTGCCTCTGCAGCTCCTCCCCTTGGGC
AGCCTGGTTCTCCCGGAGGACCTTTCCCTTGGGGCCCTGCTTCATGACGATGCTGCCTGTGTACCCCTTACCATC
TGTAACAACACTGGGTGCCTTCCCCGACCACACCCCAATGCCTTCCAGCTTGGAAGCCAAGGCAGCTGATGAAGG
GAGCTCAGGAGAGCCGTCTTCAGCTGGGCTGGGGTTGGGGCTGCTGTGAGGAAAACCTGCCATTGTGGCCCTGGA
GAGTACCCAGCAGCTCTTGGGAAGGACTTGCTGGGAGGCTGAGAGAGGCTTTGGGCACAGCCTGTCTTTTCC
ATTTCTAAAGTTTACTTCATTGTCTTGAGGCTTCCAGGTTTTGTTTTGTTTTTGCCAAAGTAGAAAAGGCAGG
TGGTGGGCGGCTGGCAGGGAGTGCGGGTCCCCGCCCTCTTCAGTCTGCCCTCCCCTCCTCAGTCTGCCCACC
CCGTGCAGCCCATGCTGAGGCTGCAGTGGTGTCTGTTGGGTGTACGTGCAGGAACGTGGAGACCCTGACGTGGGCT
CACTGCGTTTTGGTTTTCTTTTCAGAACTTGGGAGCCCCCAGGGAGGGGCTAGTGTGGTAGGTCTTAGACGTGGA
TCCCTCCAGCCTCCCCAAAATCAACCTGGTGTGAGAGAACGTCCTTCTGTCCATCGTGGGTAACAGCCTTGGG
GAGGGTGCAGAGCTCTGCAGAGCCATGGGCCAGGTGGGGCTGCCTCAGTCTGTCCCCTTGGGCACTGAGGAGAG
GGGCCCATTACCTTTCTCCTAGAATGCTGTTGTAAATAAACAAATGGATCCCTGG

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FIGURE 4633

CTTTCGCTCGGCTGTTTTCTGCGCAGGAGCCGCGAGGGCCGTAGGCAGCCATGGCGCCCAGCCGGAATGGCATG
GTCTTGAAGCCCCACTTCCACAAGGACTGGCAGCGGCGCGTGGCCACGTGGTTCAACCAGCCGGCCCCGTAAAGATC
CGCAGACGTAAGGCCCGGCAAGCCAAGGCGCGCCGCATCGCCCCGCGCCCCGCGTCCGGTCCCATCCGGCCCCATC
GTGCGCTGCCCCACGGTTCGGTACCACACGAAGGTGCGCGCCGGCCGCGGCTTCAGCCTGGAGGAGCTCAGGGTG
GCCGGCATTACAAGAAGGTGGCCCGGACCATCGGCATTTCTGTGGATCCGAGGAGGCGGAACAAGTCCACGGAG
TCCCTGCAGGCCAACGTGCAGCGGCTGAAGGAGTACCGCTCCAACTCATCCTCTTCCCCAGGAAGCCCCTCGGCC
CCCAAGAAGGGAGACAGTTCTGCTGAAGAACTGAACTGGCCACCCAGCTGACCGGACCGGTATGCCCCGTCCGG
AACGTCTATAAGAAGGAGAAAGCTCGAGTCATCACTGAGGAAGAGAAGAATTTCAAAGCCTTCGCTAGTCTCCGT
ATGGCCCGTGCCAACGCCCCGGCTCTTCGGCATAACGGGCAAAAAGAGCCAAGGAAGCCGCGAGAACAGGATGTTGAA
AAGAAAAAATAAGCCCTCTGGGGACTTGGAATCAGTCGCGCAGTCATGCTGGGTCTCCACGTGGTGTGTTTCGT
GGGAACAAC TGGCCTGGGATGGGGCTTCACTGCTGTGACTTCCTCCTGCCAGGGGATTTGGGGCTTTCTTGAAA
GACAGTCCAAGCCCTGGATAATGCTTTACTTTCTGTGTTGAAGCACTGTTGGTTGTTTGGTTAGTGA CTGATGTA
AAACGGTTTTCTTGTGGGGAGGTTACAGAGGCTGACTTCAGAGTGGACTTGTTGTTTTTTCTTTTAAAGAGGCAA
GGTTGGGCTGGTGCTCACAGCTGTAATCCAGCACTTGAGGTTGGCTGGGAGTTCAAGACCAGCCTGGCCAACA
TGTCAAGACTACTAAAAATAAAGAAATCAGCCATGAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 4634

MAPSRNGMVLKPHFHKDWQRRVATWFNQPARKIRRRKARQAKARRIAPRPASGPIREIVRCPTVRYHTKVRAGRG
FSLEELRVAGIHKKVARTIGISVDPRRRNKSTESLQANVQRLKEYRSKLI LFPRKPSAPKKGDSSAEELKLATQL
TGPVMPVRNVYKKEKARVITEEEKNFKAFASLRMARANARLFGIRAKRAKEAAEQDVEKKK

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FIGURE 4635

CTGGGTCTTGGCCTTTGGGCATCATCCAGCGCCATCGGCCTGGCGCTTCAGCCAACGCGGGAGTGGATGGGCCCC
TTCTTCTTCGCAGACAGCGTTTCGGCCGCTGCCCGGGCTCTAGGCGCGGGCCGGACGGCCCCAGTCTGGAGGGTTTCGG
GGCGGAGGCCCGGGGGGTGCGCGCGCCCGGGGTCCGGCCTCTCACTCGCTCCCCCTCTCGTCCGCAGCCGCAGGG
CCGTAGGCAGCCATCGCGCCAGCCGGAATGGCATGGTCTTGAAGCCCCACTTCCACAAGGACTGGCAGCGGCGC
GTGGCCACGTGGTTCAACCAGCCGGCCCGTAAGATCCGCAGACGTAAGGCCCGGCAAGCCAAGGCGCGCCGCATC
GCCCCGCGCCCCGCGTTCGGGTCCCATCCGGCCCATCGTGCGCTGCCCCACGGTTCGGTACCACACGAAGGTGCGC
GCCGGCCGCGGCTTCAGCCTGGAGGAGCTCAGGGTGGCCGGCATTCAACAAGAAGGTGGCCCCGGACCATCGGCATT
TCTGTGGATCCGAGGAGGCGGAACAAGTCCACGGAGTCCCTGCAGGCCAACGTGCAGCGGCTGAAGGAGTACCGC
TCCAACTCATCTCTTCCCCAGGAAGCCCTCGGCCCCCAAGAAGGGAGACAGTTCTGCTGAAGAACTGAACTG
GCCACCCAGCTGACCGGACCGGTCATGCCCGTCCGGAACGTCTATAAGAAGGAGAAAGCTCGAGTCATCACTGAG
GAAGAGAAGAATTTCAAAGCCTTCGCTAGTCTCCGTATGGCCCGTGCCAACGCCCGGCTCTTCGGCATACGGGCA
AAAAGAGCCAAGGAAGCCGCAAGACAGGATGTTGAAAAGAAAAAATAAGCCCTCCTGGGGACTTGGAATCAGTC
GGCAGTCATGCTGGGTCTCCACGTGGTGTGTTTCGTGGGAACAACCTGGGCCTGGGATGGGGCTTCACTGCTGTGA
CTTCCTCCTGCCAGGGGATTTGGGGCTTCTTGAAAGACAGTCCAAGCCCTGGATAATGCTTTACTTTCTGTGTT
GAAGCACTGTTGGTTGTTTGGTTAGTGACTGATGTAAACGGTTTTCTTGTGGGGAGGTTACAGAGGCTGACTTC
AGAGTGGACTTGTGTTTTTTCTTTTAAAGAGGCAAGGTTGGGCTGGTGCTCACAGCTGTAATCCCAGCACTTTG
AGGTTGGCTGGGAGTTCAAGACCAGCCTGGCCAACATGTCAAGACTACTAAAAATAAAGAAATCAGCCATGAAAA
AAAAAAAAAAAAAAAAAAAAA

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FIGURE 4636

MAPSRNGMVLKPHFHKDWQRRVATWFNQPARKIRRRKARQAKARRIAPRPASGPPIRPIVRCPTVRYHTKVRAGRG
FSLEELRVAGIHKKVARTIGISVDPRRRNKSTESLQANVQRLKEYRSKLILFPRKPSAPKKGDSSAEELKLATQL
TGPVMPVRNVYKKEKARVITEEKNFKAFASLRMARANARLFGIRAKRAKEAAEQDVEKKK

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FIGURE 4637

TAGTTTTATCTCTATACCCAAAATGGAGGTTAAAAGTTACACTAAAAATAACACGATTGCACCAAAGAAAAGCGTC
CCATCGTATCCTGTCTAGACACGTCGGACGAGGAGGACGCGAGTGTACCCGTGGGGACAGGAGAGAAGCTGAGACT
CTCGGCACATACGATATTGCCTGGTAGTAAGACACGAGAGCCTTCTAATGCCAAGCAGCAGAGAAGGAAAAAATAA
AGTGAAGAAAGAAAGCGAAAGAAAGAAACAAAAGGCAGAGAGGTTTCGCTTCGGAAAGCGGAGCGACAAGTTCTGCTC
CTCGGAGTCGGAGAGCGAGTCTCTAGAGAGTGGGGAGGATGACAGGGACTCTCTGGGGAGCTCTGGCTGCCTCAA
GGGGTCCCCGCTGGTGTGAAGGACCCCTCCCTGTTTCAGCTCCCTCTCTGCCTCCTCCACCTCGTCTCACGGGAG
CTCTGCCGCCCAGAAGCAGAACCCAGCCACACAGACCAGCACACCAAGCACTGGCGGCAGACAAATTGGAAGAAC
CATTTCTTCCCCGGCTTGGTCAGAGGTCAGTTCTTTATCAGACTCCACAAGGACGAGACTGACAAGCGAGTCTGA
CTACTCCTCTGAGGGCTCCAGTGTGGAATCGCTGAAGCCAGTGAGGAAGAGGCAGGAGCACAGGAAGCGAGCCTC
CCTGTCTGGAGAAGAAGAGCCCCCTTCTGTCCAGCGCGGAGGGCGCTGTCCCCAACTGGACAAGGAGGGGAAAGT
TGTCAAAAAACATAAAACAAAACACAAAACACAAAACAAAGGAGAAGGGACAGTGTTCATCAGCCAAGAGCTGAA
GTTGAAAAGTTTTACTTACGAATATGAGGACTCCAAGCAGAAGTCAGATAAGGCTATACTGTTAGAGAATGATCT
TTCCACTGAAAACAAGCTAAAAGTGTTAAAGCACGATCGCGACCCTTTAAAAAGAAGAGAACTTAGCAAAAT
GAAATTAGAAGAAAAAGATGGCTCTTTAAAGATGAAAAATCACTGAAGAGAATCAAAGACACAAACAAAGACAT
CAGCAGGTCTTTCCGAGAAGAGAAAAGACCGTTCGAATAAAGCAGAAAAAGGAGAGATCGCTGAAGGAAAAGTCTCC
GAAAGAAGAAAACTGAGACTGTACAAAGAGGAGAGAAAAGAAAATCAAAGACCGGCCCTCAAAATTAGAGAA
GAAGAATGATTTAAAGAGGACAAAATTTCAAAGAGAGAAGGAGAAGATTTTAAAGAAGATAAAGAAAACTCAA
AAAAGAAAAGTTTATAGGGAAGATTCTGCTTTTGACGAATATTGTAACAAAAATCAGTTTCTGGAGAATGAAGA
CACCAAATTTAGCCTTTCTGACGATCAGCGAGATCGGTGGTTTTCTGACTTGTCCGATTATCCTTTGATTTCAA
AGGGGAGGACAGCTGGGACTCGCCAGTGACAGACTACAGGGACATGAAGAGCGACTCTGTGGCCAAGCTCATCTT
GGAGACGGTGAAGGAGGACAGCAAGGAGAGGAGGCGGGACAGCCGGGCCCCGGGAGAAGCGAGACTACAGAGAGCC
CTTCTTCCGAAAGAAGGACAGGGACTATTTGGATAAAAACCTCTGAGAAGAGGAAAGAGCAGACTGAAAAGCATAA
AAGTGTCCCTGGCTACCTTTTCGGAAAAGGACAAAGAGAGGAGAGTCCGCAGAGGCCGGGCGGGACAGAAAGGA
CGCCCTGGAGAGCTGCAAGGAGCGCAGGGACGGCAGGGCCAAGCCCCGAGGAGGCGCACCGGGAGGAGCTGAAGGA
GTGTGGCTGCGAGAGTGGCTTCAAGGACAAGTCCGACGGCGACTTTGGGAAGGGCCTGGAGCCGTGGGAACGGCA
CCACCCAGCAGCAGAGAAGGAGAAGAGGATGGCCCCGATAAGGAAAGGAAGGAGAAGACAAAACCAAGAAATGTA
CAAAGAGAAATCCAGTGACAAGGACAAAAGTGAGAAAATCAATCCTGGAAAAATGTCAGAAGGACAAAGAATTTGA
TAAATGTTTTAAAGAGAAAAAAGATACCAAGGAAAAACATAAAGACACACATGGCAAAGACAAAGAAAGGAAAGC
GTCTCTCGACCAAGGGAAAGAGAAGAGGAGAAGGCTTTCCCTGGGATCATCTCAGAAGACTTCTCTGAAAAAAA
AGATGACAAGAAAGGCAAGAGAAAAAGCTGGTACATCGCAGACATCTTCACAGATGAGAGTGAGGACGACAGAGA
CAGCTGCATGGGGAGCGGGTTCAAGATGGGAGAGGCCAGCGACTTGCCGAGGACGGACGGCCTCCAGGAGAAGGA
GGAAGGACGGGAGGCCTATGCCTCCGACAGACACAGGAAGTCTTCTGACAAGCAGCACCTTGAGAGGCAGAAGGA
CAAGGAGCCCAGAGACAGGAGAAAGGACCGAGGGGCTGCCGACGCGGGGAGAGACAAAAAGAGAAAGTCTTTGA
AAAGCACAAGGAGAAGAAGGATAAAGAGTCCACAGAAAAGTACAAGGACAGGAAGGACAGAGCCTCAGTGGACTC
CACGCAAGATAAGAAAAATAAACAGAAGCTCCCCGAGAAGGCTGAAAAGAAGCACGCTGCCGAAGACAAGGCTAA
AAGCAAACACAAAGAGAAGTCGGACAAAGAACATTCCAAGGAGAGGAAGTCTCTGAGAAGTGCCGACGCGGAAAA
AAGCCTGCTTGAAAAGTTGGAAGAAGAGGCTCTCCATGAGTACAGAGAAGACTCCAACGATAAAATCAGCGAGGT
CTCCTCTGACAGCTTCACGGACCGAGGGCAGGAGCCGGGGCTGACTGCCTTCTGAGGTTCTTTTACGGAGGCC
ACCTGGAGACGACAAGCCGAGGGAGAGCGCCTGCCTCCCTGAGAAGCTGAAAGAGAAGGAGAGGCACAGACACTC
CTCATCTTCATCCAAGAAGAGCCACGACCGAGAGCGAGCCAAGAAAGAGAAGGCCGAGAAGAAAGAGAAGGGCGA
AGATTACAAGGAGGGCGGTAGCAGGAAGGACTCCGGCCAGTACGAAAAGGACTTCTGAGGCGGATGCTTACGG
AGTTTCTTACAACATGAAAGCTGACATAGAAGATGAGCTAGATAAAACCATTGAATTGTTTTCTACCGAAAAGAA
AGATAAAATGATTCCGAGAGAGAACCTTCCAAG

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FIGURE 4638

ACTTGCCTGTCTACTCAGCCTGGACGCGCTTCTTCGGGTTCGCGGGTGCCTCCGGCCCCGGCTCCCGCCTCGGCCC
CGATGGACGCCGCGTTCTCTCTCGTCCTCGGGCTGTTGGCCCAGAGCCTCTGCCTGTCTTTGGGGTTCTTGAT
GGAGGAGGCCCCACCACCTGTACCCCTGGCGCCGGGCGCCTGCCCTGAGCCGCGTGCAGAGGGCTGGGTCTATCC
CCCCGATCAGCGTATCCGAGAACCACAAGCGTCTCCCTACCCCTGGTTCAGATCAAGTCGGACAAGCAGCAGC
TGGGCAGCGTCTATCTACAGCATCCAGGGACCCGGCGTGGATGAGGAGCCCCGGGGCGTCTTCTCTATCGACAAGT
TCACAGGGAAGGTCTTCTCAATGCCATGCTGGACCGCGAGAAGACTGATCGCTTCAGGCTAAGAGCGTTTGCCC
TGGACCTGGGAGGATCCACCCTGGAGGACCCACGGACCTGGAGATTGTAGTTGTGGATCAGAATGACAACCGGC
CAGCCTTCTGTCAGGAGGCGTTCCTGGCCGCGTGTGGAGGGTGCAGTCCCAGGCACCTATGTGACCAGGGCAG
AGGCCACAGATGCCGACGACCCGAGACGGACAACGCAGCGCTGCGGTTCTCCATCTGTCAGCAGGGCAGCCCCG
AGCTCTTCAGCATCGACGAGCTCACAGGAGAGATCCGCACAGTGCAGTGGGGCTGGACCGCGAGGTGGTCGCGG
TGTACAATCTGACCCTGCAGGTGGCGGACATGTCTGGAGACGGCTCACAGCCACTGCCTCAGCCATCATACCC
TTGATGACATCAATGACAATGCCCCGAGTTCACCAGGGATGAGTTCTTCATGGAGGCCATAGAGGCCGTCAGCG
GAGTGGATGTGGGACGCCCTGGAAGTGGAGGACAGGGACCTGCCAGGCTCCCCAACTGGGTGGCCAGGTTACCA
TCCTGGAAGGCGACCCCGATGGGCGAGTTCACCATCCGCACGGACCCCAAGACCAACGAGGGTGTCTGTCCATTG
TGAAGGCCCTGGACTATGAGAGCTGTGAACACTACGAACTCAAAGTGTGCGTGCAGAATGAGGCCCCGCTGCAGG
CGGCTGCCCTTAGGGCTGAGCGGGGCCAGGCCAAGGTCCGCGTGCATGTGCAGGACACCAACGAGCCCCCGTGT
TCCAGGAGAACCACCTTCGGACCAGCCTAGCAGAGGGGGCAGCCCCAGGCACCTCTGGTGGCCACCTTCTCTGCC
GGGACCTGACACAGAGCAGCTGCAGAGGCTCAGTACTCCAAGGACTACGACCCGGAAGACTGGCTGCAAGTGG
ACGCAGCCACTGGCCGGATCCAGACCCAGCAGTGTCTCAGCCCCGCGTCCCCCTTCTCAAGGGCGGCTGGTACA
GAGCCATCGTCTGGCCAGGATGACGCTTCCAGCCCCGACCGCCACCGGCACCCCTGTCCATCGAGATCCTGG
AGGTGAACGACCATGACCTGTGCTGGCCCCGCCGCCGGCGAGCCTGTGCAGCGAGCCACCAAGGCCAG
GCCTCTCTGGGCGCCACGGATGAGGACCTGCCCCCCCCACGGGGCCCCCTTCCACTTCCAGCTGAGCCCCAGGC
TCCCAGAGCTCGGCCGGAAGTGGAGCCTCAGCCAGGTCAACGTGAGCCACGCGCGCCTGCGGCCGCGACACCAGG
TCCCCGAAGGCCCTGCACCGCCTCAGCCTGCTGCTCCGGGACTCGGGGCAGCCGCCCCAGCAGCGGAGCAGCCTC
TGAACGTGACCGTGTGCGCTGCGGCAAGGACGGCGTCTGCCTGCGGGGGCCGACGCGTGTGGCGGGGGCA
CAGGCCTCAGCCTGGGCGCACTGGTCTATCGTGTGGCCAGCGCCCTCCTGCTGCTGGTGTGCTGGTCTGCTGCTGG
CACTCCGGGCGCGGTCTTGAAGCAGTCTCGGGGCAAGGGGCTGCTGCACGGCCCCAGGACGACCTTCGAGACA
ATGTCCTCAACTACGATGAGCAAGGAGGCGGGGAGGAGGACCAGGACGCTACGACATCAGCCAGCTGCGTCACC
CGACAGCGCTGAGCCTGCCTCTGGGACCGCGCCACTTCGAGAGATGCCCCGAGGGCCGCTGCACCCCCAGC
CACCCGAGTGTGCCCCACGACCCCTGGACATCGCCGACTTCATCAATGATGGCTTGGAGGCTGCAGATAGTG
ACCCAGTGTGCGCCTTACGACACAGCCCTCATCTATGACTACGAGGGTGACGGCTCGGTGGCGGGGACGCTGA
GCTCCATCCTGTCCAGCCAGGGCGATGAGGACCAGGACTACGACTACCTCAGAGACTGGGGGCCCCGCTTCGCC
GGCTGGCAGACATGTATGGGCACCCGTGCGGGTTGGAGTACGGGGCCAGATGGGACCACCAGGCCAGGGAGGGTC
TTTCTCTGGGGCACTGCTACCCAGACACAGAGGCCGGACAGCTGACCTGGGGCGCAACTGGACATGCCACTC
CCCGGCCCTCGTGGCAGTGTAGGCCCTGCAGAGGCAGCCTGAGGTACCGGGCCCCGACCCCCCTGGGCCCTGGGGC
AGCCTCCTTCTGTAGGCGAGGGCCCAAGTCTGGGGGCAGAACCTGAGTGTGGATGGGGCGGCCAGGAAGAGGCC
CCTTCTGCGGGGGTGGGAAGAGTTTCTCTCCATCGGCCCCATGCGGGTCACCTCCCTAGTCCACCTTTGCCTC
CTACCAGTGAACCTCATCTTTGTATGAAAGACAGCAACCTCCTGGGTAAATCTGAATGAAAAACGTGCTAGTCTC
TTTCATGCAAAAAAAAAAAAAA

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FIGURE 4639

MDAAFLVLGLLAQSLCLSLGVPGWRRPTTLYPWRRAPALSRVRRRAWVIPPISVSENHKRLPYPLVQIKSDKQQL
GSVIYSIQGPGVDEEPRGVFSIDKFTGKVFLNAMLDREKTDREFLRAFALDLGGSTLEDPTDLEIVVVDQNDNRP
AFLQEFTGRVLEGAVPGTYVTRAEATDADDPETDNAALRFSILQQGSPELFSIDELTGEIRTVQVGLDREVVAV
YNLTQVADMSGDGLTATASAIITLDDINDNAPEFTRDEFFMEAIEAVSGVDVGRLEVEDRDLPGSPNWWARFTI
LEGDPDGQFTIRTDPKTNEGVLISIVKALDYESCEHYELKVSQNEAPLQAAALRAERGQAKVRVHVQDTNEPPVF
QENPLRTSLAEGAPPGTLVATFSARDPDTEQLQRLSYSKYDPEDWLQVDAATGRIQTQHVLSPASPFLLKGGWYR
AIVLAQDDASQPRATGTLSIEILEVNDHAPVLAPPPGSLCSEPHQGPGLLLGATDEDLPFHGAPFHFQLSPRL
PELGRNWSLSQVNVSHARLRPRHQVPEGLHRLSLLLRDSGQPPQPREQLNVTVCRCGKDGVCCLPGAAALLAGGT
GLSLGALVIVLASALLLVLLVALRARFWKQSRGKGLLHGPQDDLDRDNVLYDEQGGGEEDQDAYDISQLRHP
TALSPLGPPPLRRDAPQGRHPQPPRVLPSTPLDIADFINDGLEAADS DPSVPPYDTALIYDYEGDGSVAGTLS
SILSSQGEDQDYDYL RDWGPFRFARLADMYGHPCGLEYGARWDHQAREGLSPGALLPRHRGRTA

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FIGURE 4640

AGTTCTGTGGAGCAGCGGTGGCCGGCTAGGATGGGCTGTCTCTGGGGTCTGGCTCTGCCCCTTTTCTTCTTCTGC
TGGGAGGTTGGGGTCTCTGGGAGCTCTGCAGGCCCCAGCACCCGCAGAGCAGACACTGCGATGACAACGGACGAC
ACAGAAGTGCCCGCTATGACTCTAGCACCGGGCCACGCCGCTCTGGAAACTCAAACGCTGAGCGCTGAGACCTCT
TCTAGGGCCTCAACCCAGCCGGCCCCATTCCAGAAGCAGAGACCAGGGGAGCCAAGAGAATTTCCCCTGCAAGA
GAGACCAGGAGTTTCAAAAAACATCTCCAACTTCATGGTGCTGATCGCCACCTCCGTGGAGACATCAGCCGCC
AGTGGCAGCCCCGAGGGAGCTGGAATGACCACAGTTCAGACCATCACAGGCAGTGATCCCGAGGAAGCCATCTTT
GACACCCCTTTCACCGATGACAGCTCTGAAGAGGCAAAGACACTCACAATGGACATATTGACATTGGCTCACACC
TCCACAGAAGCTAAGGGCCTGTCTCAGAGAGCAGTGCCCTTCCGACGGCCCCCATCCAGTCATCACCCCGTCA
CGGGCCTCAGAGAGCAGCGCCTCTTCCGACGGCCCCCATCCAGTCATCACCCCGTCACGGGGCCTCAGAGAGCAGC
GCCTCTTCCGACGGCCCCCATCCAGTCATCACCCCGTCATGGTCCCCGGGATCTGATGTCACTCTCTCGCTGAA
GCCCTGGTGACTGTCAAAACATCGAGGTTATTAATTGCAGCATCACAGAAATAGAAAACAACAACTTCCAGCATC
CCTGGGGCCTCAGACATAGATCTCATCCCCACGGAAGGGGTGAAGGCCTCGTCCACCTCCGATCCACCAGCTCTG
CTGACTCCACTGAAGCAAACACACATCACTGAGGTCACAGCCTCTGCCGAGACCCTGTCTCAGCCCTCTCT
GTTGAGACACCAAGTTACGTCAAAGTCTCAGGAGCAGCTCCGGTCTCCATAGAGGCTGGGTCAGCAGTGGGCAA
ACAACTTCCTTTGCTGGGAGCTCTGCTTCTCTACAGCCCCCTCGGAAGCCGCCCTCAAGAACTTCAACCCCTTCA
GAGACACCGACCATGGACATCGCAACCAAGGGGCCCTTCCCCACCAGCAGGGACCCTCTTCTTCTGTCCCTCCG
ACTACAACCAACAGCAGCCGAGGGACGAACAGCACCTTAGCCAAGATCACAACCTCAGCGAAGACCACGATGAAG
CCCCAACAGCCACGCCACGACTGCCCGGATCGAGGCCGACCACAGACGTGAGTGCAGGTGAAAATGGAGGTTT
CCTCCTCTGCGGCTGAGTGTGGCTTCCCCGGAAGACCTCACTGACCCCAGAGTGGCAGAAAGGCTGATGCAGCA
GCTCCACCGGGAACCTCCACGCCACGCGCCTCACTTCCAGGTCTCCTTACTGCGTGTCAGGAGAGGCTAACGGAC
ATCAGCTGCAGCCAGGCATGTCCCGTATGCCAAAAGAGGGTGCTGCCCCTAGCCTGGGCCCCCACCAGACAGCTG
CAGCTGCGTTACTGTGCTGAGAGGTACCCAGAAGGTTCCCATGAAGGGCAGCATGTCCAAGCCCCTAACCCAGA
TGTGGCAACAGGACCCTCGCTCACATCCACCGAGTGATGTATGGGGAGGGGCTTACCTGTTCCAGAGGTGT
CCTTGGACTCACCTTGGCACATGTTCTGTGTTTTAGTAAAGAGAGACCTGATCACCCATCTGTGTGCTTCCATCC
TGCATTAAAAATTCACCTCAGTGTTGGCCAG

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FIGURE 4641

CAGAGGCTGGGAGGCGGCAGAATGCAGCCAGAGGAGGGCACAGGCTGGCTGCTGGAGCTGCTGTCCGAGGTGCAG
 CTGCAACAGTACTTCCTGCGGCTCCGAGATGACCTCAACGTCACCCGCTGTCCCACCTTTGAGTACGTCAAGAAT
 GAGGACCTGGAGAAGATCGGCATGGGTGCGCCTGGCCAGCGGCGGCTGTGGGAGGCTGTGAAGAGGAGGAAGGCC
 TTGTGCAAACGCAAGTCGTGGATGAGTAAGXXX
 XX
 XX
 XX
 XX
 GAAGCCATGGACGACTTCATCCGGGAGGTCAATGCCATGCACTCGCTCGACCACCGAAACCTCATCCGCCTCTAC
 GGGGTGGTGCTCACGCCGCCCATGAAGATGGTGACAGAGCTGGCACCTCTGGGATCGTTGTTGGACCGGCTACGT
 AAGCACCAGGGCCACTTCCTCCTGGGGACTCTGAGCCGCTACGCTGTGCAGGTGGCTGAGGGCATGGGCTACCTG
 GAGTCCAAGCGCTTTATTACCGTGACCTGGCTGCCCGCAATCTGCTGTTGGCTACCCGCGACCTGGTCAAGATC
 GGGGACTTTGGGCTGATGCGAGCACTACCTCAGAATGACGACCATTACGTCATGCAGGAACATCGCAAGGTGCC
 TTCGCTGGTGTCGCCCGAGAGCCTGAAGACACGCACCTTCTCCCATGCCAGCGACACCTGGATGTTCCGGGTG
 ACCTGTGGGAAATGTTACCTACGGCCAGGAGCCCTGGATCGGCCTCAACGGCAGTCAGATCCTGCATAAGATC
 GACAAGGAGGGGGAGCGGCTGCCCGGGCCGAGGACTGTCCCCAGGACATCTACAACGTCATGGTCCAGTGTGG
 GCTCACAAGCCAGAGGACAGACCCACGTTTGTGGCCCTGCGGGACTTCTTGCTGGAGGCCAGCCACAGACATG
 CGGGCCCTTCAGGACTTTGAGGAACCGGACAAGCTGCACATCCAGATGAATGATGTATCACCCTCATCGAGGGA
 AGGGCCGAGAACTACTGGTGGCGTGGCCAGAACACACGGACGCTGTGTGTGGGGCCCTTCCCTCGCAACGTGGTG
 ACCTCCGTGGCCGGCCTGTGCGGCCAGGACATCAGCCAGCCCTGCGAAGACGTTTATCCACACAGGGCATGGC
 GACAGTGACCCCGCCACTGCTGGGGCTTCCCGGACAGGATTGACGAAGTGTATCTGGGAAACCCCATGGACCCC
 CCCGACCTCCTGAGCGTGGAACCTGAGCACCTCCCGGCCCCCCAGCATCTAGGAGGGTGAAAAAACCAACCTAT
 GACCCTGTGAGCGAGGACCAAGACCCCTTGTCCAGCGACTTCAAGAGGCTGGGCTGCGGAAGCCAGGCCTGCCC
 CGAGGGCTGTGGCTGGCGAAGCCCTCGGCGCGGGTGCCGGGCACCAAGGCCAGCCGAGGCAGCGGGCTGAGGTC
 ACGCTCATCGACTTCGGTGAGGAGCCCCGTGGTCCCGGCCCTACGGCCCTGCGCGCCCTCCCTGGCGCAGCTGGCC
 ATGGACGCCCTGCTCCCTGCTGGACGAGACCCCGCCTCAGAGCCCCACGCGGGCACTGCCCGGGCCCTGCACCC
 ACGCCTGTGGTGACTGGGACGCACGCCCGCTGCCCGCCCGCCCGCCTATGACGACGTGGCCAGGATGAGGAT
 GACTTTGAGATCTGCTCCATCAACAGCACCCCTCGTGCGCGCGGGGTCCCTGCGGGGCCAGCCAGGGCCAGACC
 AACTACGCCCTTTGTGCTGAGCAGGCGCGGCCCGCCCTCCCTGGAGGACAACCTGTTCCCTCCCGCCCCAGGGT
 GGGGGCAAGCCGCCAGCTCCGCACAGACCGCAGAGATCTTCCAGGCGCTACAGCAGGAGTGCATGAGGCAACTG
 CAGGCTCCGGCCGGCTCCCCGGCCCCCTCTCCAGCCCGGGGGGTGACGACAAGCCCCAGGTGCTCCTCGGGTA
 CCCATCCCCCTCGGCCCCACGCGCCACACGTCCAGCTGTCTCCAGCCCCCGGGCGAGGAGGAGACCAGCCAG
 TGGCCTGGACCTGCTTCCCTCCCCGGGTGCTTCCGCGGGAGCCCTGTCCCTCAAGGCTCGAGGACACCCAGC
 CCCCTGGTACCACCTGGCAGCTCCCCGCTGCCACCCCGGCTCTCAAGCTCACCTGGGAAGACCATGCCACCACC
 CAGAGCTTTGCTCAGACCCCAAGTACGCCACCCCGAGGTGATCCAGGCCCTGGCCCGCGGGCTGGTCCCTGC
 ATCCTTGCCCATCTGTCTGGGATTGTGCAAGAAGGTGAGCAGCACCCACTATTACTTGCTTGCCCGAGCGACCA
 TCCTACCTGGAGCTGCTACCAGCGCTTCTGCGTGAGTGCCAGAGCCCCGATGAGCCTACC

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FIGURE 4642

GCGGAGCGAGAGGCTGAGAGAGTCGGAGACACTATCCGCTTCCATCCGTCGCGCAGACCCTGCCGGAGCCGCTGC
CGCT**ATG**GATGATCGAGAGGATCTGGTGTACCAGGCGAAGCTGGCCGAGCAGGCTGAGCGATACGACGAAATGGT
GGAGTCAATGAAGAAAGTAGCAGGGATGGATGTGGAGCTGACAGTTGAAGAAAGAAACCTCCTATCTGTTGCATA
TAAGAAATGTGATTGGAGCTAGAAGAGCCTCCTGGAGAATAATCAGCAGCATTGAACAGAAAGAAACAAAGGG
AGGAGAAGACAAGCTAAAAATGATTCGGGAATATCGGCAAATGGTTGAGACTGAGCTAAAGTTAATCTGTTGTGA
CATTCTGGATGTACTGGACAAACACCTCATTCCAGCAGCTAACACTGGCGAGTCCAAGGTTTTCTATTATAAAAT
GAAAGGGGACTACCACAGGTATCTGGCAGAATTGGCCACAGGAACGACAGGAAGGAGGCTGCCGGAGAACAGCCT
AGTGGCTTATAAAGCTGCTAGTGATATTGCAATGACAGAACTTCCACCAACGCATCCTATTTCGCTTAGGTCTTGC
TCTCAATTTTTCCGTATTCTACTACGAAATTCTTAATTCCTTGACCGTGCTGCAGGTTGGCAAAAGCAGCTTT
TGATGATGCAATTGCAGAACTGGATACGCTGAGTGAAGAAAGCTATAAGGACTCTACACTTATCATGCAGTTGTT
ACGTGATAATCTGACACTATGGACTTCAGACATGCAGGGTGACGGTGAAGAGCAGAATAAAGAAGCGCTGCAGGA
CGTGGAAGACGAAAATCAG**TG**AGACATAAGCCAACAAGAGAAACCATCTCTGACCACCCCTCCTCCCCATCCCA
CCCTTTGGAAACTCCCCATTGTCACTGAGAACCACCAATCTGACTTTTACATTTGGTCTCAGAATTTAGGTTCC
TGCCCTGTTGGTTTTTTTTTTTTTTTTTTTTTAAACAGTTTTCAAAGTTCTTAAAGGCAAGAGTGAATTTCTGTG
GATTTTACTGGTCCCAGCTTTTAGGTTCTTTAAGACACTAACAGGACTACATAGAGGCTTTTTCAGCATTACTGT
GTCGTCTCCGTGCCAGATGTGGCAAGATCACCATTAGCAAAATGGAAATTACATTTGAAAGCCATTAGACTTATAG
GTGATGCAAGCATCTAAGAGAGAGGTTAATCACACTATAGAGGCATAAGTGGTATCAGTTTTCAATTTTCTAATT
GTTTAAACTGTGTTTTTATACCAAGTGTGCAAGTAATTGGGTGTTAGCTTGAGATGGTTAAAGGTGGTTTGGGGA
GGGACTTCGTTGTAATGGTTTTGCTGTAAAAATGTTTCCAACCTCCGCTGAAATGTTGCTGAAAAGCATGGTGCT
GGTAACAGTTCAACAATCCGTGGCTGCTCATTCTTGCTTACTTTACTCTCCCACTGAAGCAGGTTAGCGTTGAAG
GTGGTATGAAAAGCCTGCATGCCTGTTCAATTCTTTGTTTCTTCTCCTTCCCCCTCCCCCTACCTCCTTCCCC
TCACTCCTCCCCCTCCTTCGCTCGCTCAACCTCTTTGTTTCAGTATGTGTAACCTGAAGCTAATTTGTACTACTGG
ATATCTGACTGGAGCCACAGATACAGAATCTGTATTGTTCTTACTGAAACACAGCATGGAATTAACATTAAACTT
AAATAAAACAAACCTAAATTAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 4643

MDDREDLVYQAKLAEQAERYDEMVESMKKVAGMDVELTVEERNLLSVAYKNVIGARRASWRIISSIEQKEENKGG
EDKCLKMIREYRQMVETELKLICCDILDVLDKHLIPAANTGESKVFYYKMGDYHRYLAEFATGNDRKEAAENSLV
AYKAASDIAMTELPPTHPIRLGLALNFSVFYYEILNSPDRACRLAKAAFDDAIAELDTLSEESYKDS TLIMQLLR
DNLTLWTSDMQGDGEEQNKEALQDVEDENQ

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FIGURE 4644A

CTCGCCCCCTCCGCGCTCGCAACTTCGGCCTCCCCCGGCTCCCGCCCCGCTCTCCCTCCTTTGTTGCGCGATGAGGG
TCGGGTTTTCGGATCTGACCGAGCCGCCGCCGCGGGATGGAGCCGCTCAGCCACCGGGCCCTGCCGCGCCTGTCT
GGATCGACACCCTCTACAGCAACTTCAGCTACGGGACGGACGAGTACGACGGAGAGGGGAATGAGGAGCAGAAGG
GGCCCCCGGAGGGCTCAGAGACCATGCCGTACATCGATGAGTCGCCCACCATGTCCCCGCGAGCTCAGCGCCCGCA
GCCAGGGCGGGGGGATGGCGTCTCCCCGACTCCACCTGAGGGACTGGCTCCTGGGGTGGGAAGCAGGGAAAGGCC
TGGAGATGAGGAAGCTGGTTCTCTCGGGGTCTTGCGCCAGCGAAGAGATCTACATTAACCAGCTGGAAGCCCTGT
TGCTGCCCATGAAACCCCTGAAGGCCACCGCCACCACCTCCCAGCCCCGTGCTCACCATCCAGCAGATCGAGACCA
TCTTCTACAAGATCCAGGACATCTATGAGATCCACAAGGAGTTCTATGACAACCTGTGCCCAAGGTGCAACAGT
GGGACAGCCAGGTACCATGGGCCACCTCTTCCAGAAGCTGGCCAGCCAGCTCGGTGTGTACAAAGCGTTTGTCTG
ATAACTATAAAGTCGCTCTGGAGACAGCTGAGAAGTGACGCCAGTCCAACAACAGTTCCAGAAGATCTCAGAGG
AACTCAAAGTGAAAGGTCCCAAGGACTCCAAGGACAGCCACACGTCTGTCAACCATGGAAGCTCTGCTCTACAAGC
CCATTGACCGGGTCACTCGGAGCACCCCTAGTCTACACGACCTGTGTAAGCACACACCTGTGGACCACCCCGACT
ACCGCTGTCTGAGGATGCCCTCCGCATCTCCAGAACTTCCTGTCCAGCATCAACGAGGACATCGACCCCCGCC
GGACTGCGAGTGACAACGCCCAAGGGGGAGACGCGACAGCTGGTGAAGGACGGCTTCTTGGTGGAAAGTGTCTAGAGG
CCTCCCGAAGCTGCGGCACGTCTTCTCTTTACAGATGTCTACTGTGTGCCAAGCTGAAGAAGACCTCTGCAG
GGAAGCACCAAGCATGACTGTAAGTGGTACATCCCCCTGGCCGACCTGGTGTTCCTATCCCCCGAGGAATCTG
AGGCCAGCCCCAGGTGCACCCCTTCCCAGACCATGAGCTGGAGGACATGAAGATGAAGATCTCTGCCCTCAAGA
GTGAAATCCAGAAGGAGAAAGCCAAACAAGGCCAGAGCCGGGCCATCGAGCGCCTGAAGAAGAAGATGTTTGAGA
ATGAGTTCCTGTCTGCTCAACTCCCCCACAATCCCGTTTCAAGGATCCACAATCGGAATGGAAAGAGTTACCTGT
TCTACTGTCTCGGACTACGAGAGGTGAGGTGCTCAGGATCCCTGTTTCAAGCTTAGGACTGTACACAACATTC
CCTTTGTCTGAGCTCAGTGGAGCTCCAGGTGCTCAGGATCCCTGTTTCAAGCTTAGGACTGTACACAACATTC
CTGTCAACCAGCAATAAAGACGACGATGAGTCTCCAGGACTCTATGGCTTCTTTCATGTATCGTCCACTCTGCCA
AGGGATTTAAGCAATCAGCCAACCTGTACTGTACTTACCCTGGAGGTGGATTCTTTCGGCTATTTTGTCTAGCAAAGCCA
AAACCAGGGTGTTCGGGACACAGCGGAGCCCCAAGTGGGATGAGGAGTTTGAGATCGAGCTGGAGGGCTCCCAGT
CCCTGAGGATCCTGTCTATGAGAAGTGTCTATGACAAGACCAAGGTCAACAAGGACAACAATGAGATCGTGGACA
AGATCATGGGCAAAGGACAGATCCAGCTGGACCCACAAACCGTGGAGACCAAGAATGGCACACGGACGTGATTG
AGATGAACGGGATCAAAGTGAATTTTTCATGAAATTCACCAGCCGAGATATGAGCCTGAAGAGGACCCCGTCCA
AAAAGCAGACCGGCGTCTTCGGTGTGAAGATCAGCGTGGTGACGAAGCGGGAGCGCTCCAAGGTGCCCTACATCG
TCCGGCAGTGTGTGGAGGAGGTGGAGAAGAGGGGTATCGAGGAGGTTGGCATCTACAGGATATCGGGCGTGGCCA
CGGACATCCAGGCGCTCAAGGCCGTCTTCGATGCCAATAACAAGGACATCCTGTGATGTGATGACATGGACA
TCAACGCCATCGCCGGGACGCTCAAGCTGTACTTCCGGGAAGTCCCGAGCCGCTCCTCACGGACCGACTCTACC
CAGCCTTCATGGAGGGCATCGCCCTGTCTAGACCCTGTGCCAAGGAAAAGTGCATGATGCACCTGTCCGCTCCC
TGCCCCGACCCCAACCTCATCACCTTCTCTTCTGTCTGGAACACTTGAAAAGGGTTGCCGAGAAGGAGCCCATCA
ACAAAATGTCACTTCACAACCTGGCTACCGTGTGTTGGACCCACGTTACTGAGACCCCTCAGAAGTGGAGAGCAAAG
CACACCTCACCTCGGCTGCGGACATCTGGTCCCATGACGTATGGCGCAGGTCCAGGTCTCTCTACTACCTGC
AGCACCCCCCATTTCTTTCGCAGAACTCAAGCGGAACACACTGTACTTCTCCACCAGCTGTAGCCCGAGGCAG
GGTGGCTGCGGGCGGGTGGTGAACCAGCCCCCTCAGCCTGGGGTCCAACCTCAGACTTGAAAGACTGCAATAGAA
AACTCCCAAACCCAGCACTCCAGACTCGAGGGAAGCCAGCTTCCAAGAACTGGAATGCGTACGTCTTTTGTGCCA
CCTTGTACAAAGCCGGCTGCCAGCCCCAGCCTCACCACCGCATCCACCTCCTGCCCTCCATACCTCTAGTTGT
GTCTGATGCTCCGTGCTGTTTCGGGAATTGTTTTATGTACACTTGTCTAGGCAGAAAAGGTAGTGACCGGCCCGCG
TGGGCACACAGACAGCCCGCTTTGTTCTTTTCACTTCTCCAGCACTTCTTTCCGCTGAGTCCAGCCCAAGGCC
TTTTATTTTGCCTGTGTAAGTGTGCTGCCAGCTTCTCTTGGCCCTGTCCCAGATGGCGGTCTCTGGCAGCCTCC
CCTCAGTCTTCTCCACCCGCTCTTCTTCCCAGCTGCTGCTGATGCTGACCCCTTGGTCTTCTGCTCCATCG
CCTTGAAGCTCTGAAGAGGCCCTGGGTGCGCGCGCAGCAGTGGTCTGTTTGTGCTGCCGTGCTGCGCTGCCG
GCCCCCTCCTCAGACTCCGCTTTGGGAGCACACCTGCTTTGCCTTGTGCTGCTGCTGCAAAATGTTGGACAAGCAGAC
ACACTCACACTCGTCCCCAGCTTAGCACAGAGCTGGAGCGCCCATTTCTGGAATTTCCGTTTGGGAATCTCCAC
TTCTGGGGTTTACCTGTTCCGGCCTCCTGCCTATCAGTGAGGCATCTCTGACTGTTTCTTCTACTGCTTTTCACTT
CCCTTCCCTGCTGTTCTATTTCCTTTGAGTGTAAAGACTCACAGGTGACCTGCTATCGAGATAGCCAGAGGGTCA

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FIGURE 4644B

GGAGAGAATGGGGGAGGAGGCGGTCAGGCTGCTGAGGAAACACCACAGGCTGAACGGGGGAGGAATGCACATGCC
ACGCTGGGTGTCCCGGGTCGCGGGGAGGCAGCTCAGCTCTTAGGAGCAAGTTGTGGGGGCTTTTCAAGAGGGGGCC
AGGCTTCCTGGAGGGTGACTGATGTGGCCGAAGCAGGTGTCCAGGCAGGTAGGCTGCAGCCAGGAGCTCCCTGGC
ACCGCAGGACCTCGTGGTACTCTTGCCCTTAGATTTTACACACACTCCACAGCCAAGCACTGCCACGGTCCTCCAG
GACCTGGGAAGCAAAGGCACAGGCCACGGTGGCCAGCCATTGTGGTGCTGCCCCAGCTTCTGGATACAGCCTTT
TGGGTAAACACTGGGAATCCAGAAGTTGTGGGAGAGTGGGGAATCAGACAGCCGCTCTAGGGGCTGGGTTCT
GCTGGGGCCTCCTTGTTGGTGCTGTAGGCACCCGCCAGGGAGCAGGGACCCGACTTGACAGCGCATTGCCCCGTA
CTAGGAAGGAGTGAGGTGTGTTCCACCGTACACTTCCACACGAGCTGCGGGTGCCAGCCTCGGGCCATCAGCC
TAGGAGAGCAGATGCAGCTCCAGGGGCTCGACTTATAGCCAGTTACAGCTCCCCGGCTCTTCTGTGTGGCAGAGC
GTCGTTTCCGGGCGCTCAGGGCTGGGGAGCTCAGTTCCCATGCTTGTGCTCAGGGCTGAGTCTTAAAGAAGGGT
TTGCCGGCCCTAACGCTGCAGCGCGTGCGCGGAGAGAGGCCCTTTTGTAGCCTGTTTACTCCTGTGGCCTTGGGC
AGAACAGTAAATACTCTGTGCACGGAGGAAAGACATGCCCAAGAGGAAGGAAGTACTGACCATCGGCTGCCTGTG
AGCAGCTTAGCAAGGAGCCCTTGCTCCCTGGGAAAGGCGGTGAACCTGAGTCTAAAGATGCAGTGCCTGGCCCTT
CCTAAGGTCCCTGCCTGGCATCCGAGTGTGCGTGTGTGGCACAGAAGGCTCCTGCTTGCTTCCAAAGTGATGGAC
AGGAAGGGGCAGAGTGAGTCACGGCCAGACTGGGCACCTTCGCGTCTCAGCCTCAGGGAGCCCCACAGCCCCAA
GCTCGCTGAGGCAACGTGAGAACAGGCTATGGGAAGGCTGCAAAGGCTGAGAAATGCAAAGGCTCATATTTATAA
ATCCACCCCCAGAGTGGGGAGGGTCAGGTGCCAGACCTGGACTAACTGCACCAAGGAAACACCCAGCAGGGTC
TCCTGTGAGCCGGGGACCATGCAGCCCGAAACCTCCAGTCACTGCGCCCGGCAGGAGTCAGGAGCCAGGGACTGT
GCAGCCTGGAACCTCCAGTCACTGTGCCAGCAGGGTGGGCTGTGCCAGCAGGAGTCAGGCTAAGAAACGCCAG
GTCTGCCGTGTTCTTGCTGGGCAATGGCTGATGGCTGCCAGTTTCTGCTGATACACAGGTAGGATGGGACCCCTTCA
TGAATATCTGACTTTAATAAGTTGGTAAGGATATATTTTTTTGTCTATGTTCTGTTTCACTTATGTAGATTATT
ATAAATTGATGTAAACCACGTGAGAGGAAAATGTTAATAAAAAATGCAAAGCCCCATCATTTGCACAAAACCTC

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FIGURE 4645

GGGACCGAAACCCTTCAGGGAAGTCATTGCAGGGCCCTTGCTTAGAAACAATGGGCAGTCTCTGGAGAGCAGCAG
CCTGGAGGGGTCTCACGTGGGCGTCTATTTCTCCGCACATTGGTGTCCGCCCTGCCGAAGCCTCACCCGGGTCTCT
GGTGGAAATCCTACCGGAAGATCAAGGAGGCAGGCCAGAACTTCGAGATCATCTTCGTTAGTGCAGACAGGTTCGGA
GGAGTCTTCAAACAGTACTTCAGTGAGATGCCCTGGCTCGCCGTCCCCTACACGGATGAGGCCCGGGCGGTTCGCG
CCTCAACCGGCTGTACGGAATCCAAGGCATCCCCACGCTCATCATGCTGGACCCGCAGGGCGAGGTGATCACGCG
GCAGGGGCGGGTGGAGGTGCTGAACGACGAGGACTGCCGGGAGTTCCCCTGGCACCCCAAGCCCGTGTCTGGAGCT
CTCCGACTCCAACGCCGCGCAGCTTAACGAGGGCCCCCTGCCTCGTCTTTTTTGTAGATTCTGAGGATGACGGAGA
GTCCGAGGCGGCCAAGCAGCTGATTACGCCGATAGCTGAGAAAATCATTGCCAAGTACAAAGCCAAAGAGGAGGA
GGCACCCCTTCTGTCTTTCGTAGCCGGGGAGGATGACATGACTGACTCCCTGCGAGATTACACCAACCTGCCTGA
GGCTGCCCTTTGTCTACCATCTTGGACATGTCTAGCCCGGGCCAAGTACGTGATGGACGTGGAGGAGATCACCCC
CGCCATCGTGGAGGCCTTTGTGAATGACTTCCTAGCAGAGAAGCTCAAACCGGAGCCCATCTAGCGTGGCTCCGG
CCTCCTGAGACGTTATTTAAACTCAGCCTTCTCCTCCTCCCCCTCCTTCTTCCGCCCTTGGACTTACCCAGCG
TGCCCCGAATCCCAACCAACCAAGTGTCCAGCCTCTCTGTGGTGCCTTGTTCGTGAGTAACTCCTCAGCCAGCA
CCCTGGGGTGTGGAATCAGCAGCGGCAGAGTCCACCGTGTTCGGAGACTCTGTTTGGGAGCACGGGATGGCCGGG
GGCCCGGCCAGAGCGGGGCTGCATGGCTTTCGCAAAGTCACTAGCTTTTGGTGAAGGATCTGCCAGGGTGTCTCTG
GGCAGAGTGAGCGTGGAGGGCGGTGGGTCCCGCTCGGGCTCTGACTCTGACGTCCGCACACACGGCCCCGGACG
GCCAGAGGGGAACCGCCGGGTGACACCTGCGTGGAGGCTGAGCTGAGAAAGGGCCTCCGCTTAGAGCTGCGGGTG
AGGACGTCTTTTCTAAGCAACACAGTCTTCTCCTCGTCTGAGAGAAAAGCAGCCCACTCTTGTGTCTCAGGCAG
GGGATCTCCAAATGCAAAAGGAAGCTTGTAGAGGTTTTTTGGGTGAGAAGAAAAATGTAGCTAAGGTAATGGTTC
ATATCATACAAACAGCTCCCACGATCCTGAAATTCTGTTAACGAATCCTTCTCTTTGGACATCTTCCCAAGAAAC
TTAGCCCTGAGTCCCTAGGAGGAGCACCTCTGCACCAGCACGGACCTCTCGCTCCACCCAGCTCTGTGCCCAAGGC
CCCTGATCTCTGCTGAGGTGCCACACCCACGTTTCGATCACCCCTGCCATTCCCTTTTATTTTCTTTTTTTTGGAG
ATGGAGTCTTGTCTGTCTGCGCCAGGCTGGAGTGCAGTGGCACCATCTTGGCTCACTTCAACCTCCGCCCCAAGG
TTCAAGTGATTCTCCTGCCTCAGCCTCCCGAGTAGCTGGGATTACAGGCACCCGCCACCGTACCTGGCTAATTTT
TGATTTTTTAGTAGAGATGGGGTTTACCATGTTGGCCAGGCTGGTCTCGAACTCCTGACCTCAGGTGATCCACC
CGCCTCGGCCTCCCAAGTGCTGGGATTACAGGCGTGAGCCGCCGTGCCCGGCCCTTTTCTTTTCAAAGCAGA
ACTACAAAGATGAGAAATTACCAGAAGCCTCGCCTTTTCTAAGCACCAGCGGAAGGAGCTGTGCCCCGGGATGG
AGTGAGGGTGGAGGGCGCGTCAGCCACGGGTGGGCCTTGTGTGCGCTTGTATCGGCCAGGTAGGTGTGGCCT
CTTACTTGGGCTGACCTGACCCCCGAAAGAGAAACAGACAACCTCTGTTCTCAGGATTGGGGATGGACGGCTTCGG
CCAAGCGTTTTAGCCTCATTCACTCAGGCCCCACTCAGCACTCTGCCAGCCAAGACCATTGATTGGAAAAATCCG
GTCCCCACCCGCTAATGAGCTGTTGACACTGTTGTTCTTGCTGAATTGGATTGTTGACTTGTAGTTCAGAGGCG
TACAAGTAGTTGGCGATTAGACTTGTTATGTGATGTTACCAGCCTGAAATGCGATCACCCCGTAGGAAATAAAGC
AGGCATCTCTGGACCTC

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FIGURE 4646A

TGGCCGTGTGATTGCTCTGTGCCCATTACCCTGTGGCCGTGTGACTGCTGCTGTGCCCATTACCCTGTGGCCGTG
TGATTGCTGCTGTGCCCATTACCCTGTGGCCGTGTGATTGCTCTGTGCCCATTATCCTGTGGCCGTGTGATTGCT
CTGTGCCCATTACCCTGTGGCCGTGTGATTGCTCTGTGCCCATTACCCTGTGGCCGTGTGATTGCTCTGTGCCCCA
TTATCCTGTGGCCGTGTGATTGCTCTGTGCCCATTATCCTGTGGCCGTGTGATTGCTCTGTGCCCATTATCCTGT
GGCCGTGTGATTGCTCTGTGCCCATTACCCTGTGGCCGTGTGATTGCTGCTGTGCCCATTACCCTGTGGCCGTGT
GATTGCTCTGTGCCCATTATCCTGTGGCCGTGTGATTGCTCTGTGCCCATTATCCTGTGGCTGTGTGATTGCTCT
GTGCCCATTATCCTGTAGCCGTGTGATTGCTTCTGTGCCCATTACCCTGTGGCTGTGTGATTGCTGCTGTGCCCCA
TTATCCTGTGGCTGTGTGATTGCTGCTGTGCCCATTACCCTGTGGCTGTGTGATTGCTCTGTGCCCATTACCCTG
TGGCTGTGTGATTGCTCTGTGCCCATTATCCTGTGGCCGTGTGATTGCTGCTGTGCTGTGCTTACCCTGTGGCTGTG
TGATTGCTCTGTGCCCATTACCCTGTGGCTATGCTCCCTTCATCTGTCTATGAGAAGCTCAGCTGTCTATGCTCTGT
GGTACATGCTCAGTGGCCCCCTGTAGTTTGTACTGTCTCCTATTTCTAAACCCCTCTCCCCACATCCTCTGCTGG
CCCAGCCTTTGCTGGAGGGTCTCGCCTCAGCAGCCAGCTTTTCTTTTACACACTTTTCTGAAAGGATCTCAT
TCACCGTCTTGGTTCGGGTGATCCCTCTGGGCAGATACCTCTCAGAATCACATTTCCAGCTTACTTCCCTCCT
GAACTTCCACCTGGCATTTCCTGTGGAGGACATCTGTACCTTGATGGCCAAAGCTGAACTCATCTTTCTCTCA
CACCTGCTCTGATTCTCCTCCATTCCCTGTATGTGATGTACCTGGTGGCTCCCAGTTCCAGGCTGGAGAGCT
CGGAAGCCATTCTGGATTCTCGGCCAAGTCTTCTGACTCCAGCTGTGCACTGGCTCTTGTAGTCATCCCTTCT
CCCCGTCCGCTGATGTCTTTAAACCCCTTGTCTCTCAAACCATGACAGCCTACTAACAGCAGTGGCCATCTGG
AAACATTTTCACTATACTGTCTTATTTGGCTTGTCTGTGTGAGGACCCCTGAACATCTGTGAAGAAATGACTAT
TCTGCATGGAGGCTTCTTGTGGCCGAGCAGCTGTTCACCCCTAAGGCACTGGCAGAAATTAACAAAGTCTGACTG
GGAACGTGTGGAGGCCCCATCGTGGAGGCTTAAGGGAGATCTCCTCGGCTGCAGCACACTCCCAGCCCTTTGC
CTGGAAGAAGAAAGCCCTGATCATCATCTGGGCCAAGGTCTGCAGCCGCAACCCGCTGACCCCGTCCGACACAGA
GACACGGTGGCAGGAAGACCTGTTCTTCTCGGTGGGCAACATGATCCCCACCATCAACCACACCATCCTCTTGA
GCTGCTCAAATCCCTGGAAGCTTCTGGACTCTTATCCAGCTCCTGATGGCCCTGCCCACCACCATCTGCCATGC
AGAACTAGAGCGCTTTCTGGAACATGTGACCGTGTGACTTCTGCCGAAGACGTGGCCTTCTTCTGGACGTCTG
GTGGGAGGTGATGAAGCAAGGGTCACCCGAGGACCCCTGCTCTCCAGTTTAGTGCAATGGCCCATAAAGTA
CCTGCCTGCCTTAGATGAGTTCCCCCATCCTCAAAGAGGCTTAGGTGAGCCAGACGCGTGCCCAACCATGCC
CCTGTTGGCCATGCTGCTCCGCGGGCTGACACAGATCCAGAGTCCGATCCTGGGCCCGGGGAGGAAGTGTGTGC
GCTGGCCAACCTGGCTGACATGCTGACTGTGTTTGCCTGTGAGAGGACGACCCCAAGAGGTGTGCAACCGT
GTATCTGGACAACTGGCCACGGTGATCTCTGTGTGGAACCTCGGACACCCAGAATCCCTACCACAGGCGCT
GGCAGAGAAGGTGAAGGAGGCAGAACGGGATGTGACCTGACCTCGCTGGCCAAACTXCCCAAGTGAGACATTT
TCGTGGGCTGCGAGTTCTGCAACCTGCTGCGGGAGTGGGGGAGGAGTTGAGGCCGTGCTCCGACGAGCC
AGGGGACAAAGTTACGACAGCTACCGGCTGTGCGACAGTCTGACTTCTTTCAGCCAGAACGCGACGCTCTACCTGA
ACCGCACCAGCCTGTCCAAGGAGGACAGGCAGGTGGTCTCTGAGCTGGCGGAGTGTGTCAGGGACTTCTGAGGA
AAACGAGCACGGTGTGTAAGAACAGGGCCTTGGAGGATATCACAGCTTCCATTGCCATGGCCGTCTACAGCAGA
AGATGGACCGCCATATGGAAGTGTGCTACATTTTGCCTCTGAGAAGAAGTGGGCCCTTCTCGGACGAGTGGGTAG
CCTGCCTGGGGAGTAACAGGGCCCTCTTCCGACAGCCAGACTTGGTGTGAGGCTGCTGGAAACAGTGATAGACG
TCAGCACAGCTGACAGAGCCATCCCTGAGTCTCAGATCCGGCAGGTGATCCACCTGATCCTGGAATGTTACGCAG
ACCTCTCCCTGCCAGGTAAAAATAAAGTCTTGCAGGTATCCTGCGTTTCTGGGGGCGAAAGGGCCTCTCTGAAA
AGTTGCTGGCTTATGTGGAGGGTTTTTCAGGAAGACCTCAATAACAATTTTAACAGCTCACTCAGAGTGCCCTCCG
AACAGGGCTTGGCAAAAGCTGTGGCCTCCGTGGCCCGCCTGGTCTAGTGCACCCGGAAGTCACGGTGAAGAAAA
TGTGCAGCCTGGCTGTGGTCAATCTCGGCACCCACXAAXGTTTCTGGCCAGATTCTCACTGCCTTCCCTGCCCT
TAGGTTTGTGGAAGAGCAGGGTCCCAATTCTGCTGCTTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT
GAAGTTCTCTACACCAAGGAAGAAAAGCAATTTTTAGAGCTCCTGAACTGCCTGATGAGTCCCGTGAACCCCCA
AGGGATTCCAGTGGCTGCTCTTCTGAGCCAGACGAGGTGCTGAAGGAATTTGCTGCTGCTTCTTGGAGTTAGA
TGTGAAGAGGTAGACCTCAGTCTGAGGATCTTCTACAGACTCTAGAGGCAAACGCGTGCCGAGAGGAATACTG
GCTCCAGACCTGCTCCCCGTTTCCACTCCTCTTACAGTCTGTGCCAGCTCTTGGACCGCTTACAGCAATACTGGCA
GCTTCCCAAGGAGAAGCGGTGCTCTCTTTGGATAGGAAGGATCTAGCGATCCATATCCTGGAGCTCCTGTGTGA
GATTGTATCAGCCAATGCTGAGACCTTCTCCCCGATGTCTGGATCAAGTCCCTGTCTGGCTCCACCGCAAGTT

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FIGURE 4646B

AGAACAGCTAGACTGGACTGTGGGCCTGAGGCTGAAGAGCTTCTTCGAGGGGCACTTCAAGTGTGAAGTGCCAGC
CXACAXCTTTTTTGAGATCTGTAAGCTTTCAGAAGACGAGTGGACCTCCCAGGCCCACCCAGGGTACGGGGCTGGC
ACGGGGCTCCTGGCCTGGATGGAGTGCTGCTGCGTCTCCAGCGGCATCTCGGAGAGGATGCTGTCTCTCTTGGTG
GTGGACGTGGGCAATCCTGAGGAGGTGAGACTGTTTCAGCAAAGGCTTCTGGTGGCCCTGGTGCAAGTCATGCCT
TGGTGCAGCCCTCAGGAGTGGCAGCGCCTTCACCAGCTGACCAGGAGACTGCTGGAGAAGCAGCTCCTCCATGTC
CCTTATAGCCTGGAATATATTTCAGTTTGTTCCTGCTCAACCTGAAGCCCTTTGCCAGGAGTTGCAACTCTCC
GTCTCTTCTCCTGAGGACTTTCAGTTTCTCTGCAGCCATAGCTGTCTGATTGGCTTCCTCTGGAAGGCTGGAAC
CACGTGGTCAAACCTCCTCTGTGGCAGTCTGACCCGCTCCTGGACTCAGTCAGGGCGATACAGGCAGCTGGCCCT
TGGGTTCAAGGACCAGAGCAGGACCTGACCCAGGAAGCCCTGTTTGTTCACCCAGGTGTTCTGCCATGCTCTG
CACATCATGGCCATGCTCCACCCGGAGGTCTGTGAGCCACTCTACGTTTTCAGCCTTGGAACCCCTCACCCTGCTAT
GAGACTTTGAGCAAGACCAACCCTTCTGTCTAGCTCCTTGCTCCAGAGGGCACACGAGCAGCGCTTCTTAAAGTCC
ATTGCTGAGGGCATCGGCCCTGAAGAACGGCGCCAAACCCTGTTGCAGAAGATGAGCAGCTTCTGACTTGGCGTG
GGGAGCTGGGCCCCAACATGGCGGGTCTGCAGAAGATCAGCAGCTTCTTACCTGTGCGGGAGCGAAAAAGCTGGG
CTTCAACATGGCAGGTCTGTAGGGGTGAGACCCGAGCAGCCTGGACTTTACAGTTATGTGAACTGTCCACAAA
AGTCATGGCAATAATGGTGTAAGAAAATAGTTTCTTGGGTATTTGTAACGTACAACTATCATAAAAATTCTCC
TCTTTCGC

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FIGURE 4647

CCAACTTCGGCTATGACCTGTACCGGGTGCGATCCAGCATGAGCCCCACGACCAACGTGCTCCTGTCTCCTCTCA
GTGTGGCCACGGCCCTCTCGGCCCTCTCGCTGGGAGCGGAGCAGCGAACAGAATCCATCATTACCGGGCTCTCT
ACTATGACTTGATCAGCAGCCCAGACATCCATGGTACCTATAAGGAGCTCCTTGACACGGTCACTGCCCCCAGA
AGAACCTCAAGAGTGCCTCCCGGATCGTCTTTGAGAAGAAGCTGCGCATAAAATCCAGCTTTGTGGCACCTCTGG
AAAAGTCATATGGGACCAGGCCAGAGTCCTGACGGGCAACCCTCGCTTGGACCTGCAAGAGATCAACAACCTGGG
TGCAGGCGCAGATGAAAGGGAAGCTCGCCAGGTCCACAAAGGAAATTCCTGATGAGATCAGCATTCTCCTTCTCG
GTGTGGCGCACTTCAAGGGGCAGTGGGTAACAAAGTTTGACTCCAGAAAGACTTCCCTCGAGGATTTCTACTTGG
ATGAAGAGAGGACCGTGAGGGTCCCCATGATGTCGGACCCTAAGGCTGTTTTACGCTATGGCTTGGATTGAGATC
TCAGCTGCAAGATTGCCCAACTGCCCTTGACCGGAAGCATGAGTATCATCTTCTTCTGCCCCTGAAAGTGACCC
AGAATTTGACCTTGATAGAGGAGAGCCTCACCTCCGAGTTCATTGATGACATAGACCGAGAACTGAAGACCGTGC
AGGCGGTCTCTACTGTCCCCAAGCTGAAGCTGAGTTACGAAGGCGAAGTCACCAAGTCCCTGCAGGAGATGAAGC
TGCAATCCTTGTTTGATTACCAAGACTTTAGCAAGATCACAGGCAAACCCATCAAGCTGACTCAGGTGGAACACC
GGGCTGGCTTTGAGTGGAACGAGGATGGGGCGGGAACCAACCCAGCCAGGGCTGCAGCCTGCCCACCTCACCT
TCCCGCTGGACTATCACCTTAACCAGCCTTTCATCTTCGTAAGGACACAGACACAGGGGCCCCCTTCTCTTCA
TTGGCAAGATTCTGGACCCAGGGGCCCCCTAATATCCAGTTTAAATATTCCAATACCCTAGAAGAAAACCCGAGG
GACAGCAGATTCCACAGGACACGAAGGCTGCCCTGTAAGGTTTCAATGCATACAATAAAAGAGCTTTATCCCT

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FIGURE 4648

ATGGAAGAAGGCTCGGGGCCGAGCCACCCCGGACCGCCGGCCCCAGCCCCCGGTACCTCCTCACC GCAATGGCCC
CCTCGCTCAGCTGGCCGACCATGGCTCCACCGCCAAGACTTCCCCGCGGACCCCGCAACAGCTCCAGCTTCCCCA
CCCGGACCTGAGGATGAGCTGTTTCTAAAAAGACTTTCTAAAGGTTACTTGGTGGGAAAGGACTCGGACGCTCCT
CTTTTCTACAGAGAAGAAGGAAACAAAAATTTACAGGAGAAAGATTACACAGGAGCTGCAGTGCTGTACTCTAAG
GGAGTGTACATTCAAGGCCTAACACTGAGGACATGTCACTGTGTATGCTAACCGCTCGGACGCCCTCTTCCAC
CTGGGTGAGTATGAGACGTGTCTTAAAGACATTAACAGAGCACAGACACATGGGTATCCAGAAAGGTTGCAACCC
AAGATTATGTTACGTAAAGCAGAATGTCTGGTGGCCCTGGGGAGACTGCAGGAGGCAAGCCAGACCATCAGTGAT
CTTGAAAGGAACCTTACAGCCACACCAGCCCTAGCAGATGTCTTCCCTCAGACTCTGCAGAGAAACCTCCATCGT
CTGAAAATGAAGATGCAAGAAAAGGACAGTCTCACAGAAAGCTTCCCAGCAGCTCTGGCCAAAACCTTGAGGAT
GCAGCGCTGAGGGAGGAGAATGAACAACCTTTCCAATGCCTCATCATCCATCGGCTTATGCGTAGATCCTTTAAAA
GGTCGCTGTCTCGTTGCCACAAAAGATATTCTCCAGGAGAGCTCCTGGTGCAGGAGGATGCTTTTGTGAGTGTT
CTCAACCCAGGAGAACTGCCACCACCGCATCACGGCCTAGACAGCAAATGGGACACCAGAGTCACCAATGGGGAC
CTCTATTGTCACCGATGTTTGAAGCACACTTTGGCCACAGTTCCGTGTGACGGATGCAGTTATGCCAAGTATTGC
AGCCAGGAGTGTTTGCAGCAGGCCTGGGAGCTCTACCACAGGACAGAATGTCTCTGGGAGGGCTGCTTCTCACA
CTGGGTGTCTTTTGGCCACATTGCCCTGAGGTTGACTCTTTTGGTGGGATTTGAGGATGTTTCGCAAAATCATAACG
AAGCTTTGTGATAAGATTAGTAACAAGGACATCTGTTTACCTGAAAGCAACAATCAGGTCAAGACACTTAATTAT
GGCTAGGGGAGAGTGAGAAAAATGGCAACATCGTTGAGACCCCAATTCCTGGATGCGATATTAATGGGAAGTAT
GAAAATAATTATAATGCTGTCTTCAACCTTTTGGCCACACTGAAAACCATAGCCCAGAGCACAAATTCCTCTGT
GCTCTCTGTGTTTCTGCACTGTGCAGACAGCTAGAAGCAGCCAGTTTACAGGCCATCCCAACTGAGAGGATTGTG
AACTCCTCTCAGCTTAAAGCAGCAGTGACACCTGAATTGTGTCCTGACGTGACTATTTGGGGAGTGGCGATGCTG
AGACACATGTTACAGCTTCAGTGTAACGCTCAGGCGATGACCACCATAACAACACAGAGCGAGCTGTTACGCGG
CTGTCTGGGGTGCCAGCGTGACGCCGAGAGCTTCCTGTGGGCAGAGCACGCCGTGGTGGGAGAGATCGCGGATGGC
CTGGCCCGGGCTGTGCTGCCTTAGGAGACTGGCAAAAGTCAGCCACCCATCTACAGAGGAGTCTCTACGTGGTG
GAGGTTCCGCCACGGGCCGTCCAGTGTTGAAATGGGCCATGAGCTCTTCAAATTGGCCAGATCTTTTCAACGGG
TTTGAGTACCCGAAGCCCTGAGCACAATACAGAAAGCTGAGGAGGTTCTGTGCTGCACTGTGGCCCATGGGAC
GATGAAATCCAGGAGCTCCAGAAGATGAAATCCTGTTTGTGACTTACCACCCACCCCTGTAGGGCCTGCATTG
TAG

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FIGURE 4649

MSLCHANRSAALFHLGQYETCLKDINRAQTHGYPERLQPKIMLRKAECI VALGRLQEASQTISDLERNFTATPAL
ADVLPQTLQRNLHRLKMKMQEKDSLTESFPAALAKTLEDAALREENEQLSNASSSIGLCVDPLKGRCLVATKDIL
PGELLVQEDAFVSVLNPGE LPPPHHGLDSKWDTRVTNGDLYCHRCLKHTLATVPCDGCSYAKYCSQECLQQAWEL
YHRTECPLGGLLLTLGVFCHIALRLTLVGFEDVRKIITKLCDKISNKD ICLRESNNQVKTLNYGLGEMLKWAMS
SSNWPRSFSTGLQYPKP

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FIGURE 4650

AGAGTAGTTATCTTGATGGAAXTTAGAAGTTTTGAAGTCAGCTGAAGCAGTTGGAGTGAAGATTGGCAATCCAGT
GCCCTATAATGAAGGACTCGGGCAGCCGCAAGTAGCTCCTCCAGCGCCAGCAGXCCAGCCCAGCAGCAAGCAGCA
GGCCCCAGXCCGCXAXGAATGGAAGCTCGGGAATGGGTTCTACTGTTTCTAAGGCTTATGGTGCTTCAAAGACAT
TTGAAAAGCTGCAXGGTCCCAGCCTGTACACACTTCTGGGGGAACAXCAGTCCAAAGTGGTGCCCATTTGCCAG
CCTCACTCCTTACCAGTCCAAGTGGACCATTTGTGCTCGTGTTACCAACAAAAGTCAGATCCGTACCTGGAGCAA
CTCCCCAGGGGAAGGGAAGCTTTTCTCCCTAGAACTGGTTGACGAAAGTGGTGAAATCCGAGCTACAGCTTTCAA
TGAGCAAGTGGACAAGTTCTTTCTCTTATTGAAGTGAACAAGGTGTATTATTTCTCGAAAGGCACCCTGAAGAT
TGCTAACAAGCAGTTTACAGCTGTTAAAAATGACTACGAGATGACCTTCAATAACGAGACTTCCGTCATGCCCTG
TGAGGACGACCATCATTTACCTACGGTTTCAAGTTTGATTTCACGGGGATTGATGACCTCGAGAACAAGTCGAAAGA
CTCACTTGTAGACATCATCGGGATCTGCAAGAGCTATGAAGACGCCACTAAAATCACAGTGAGGTCTAACAACAG
AGAAGTTGCCAAGAGGAATATCTACTTGATGGACACATCCGGGAAGGTGGTGACTGCTACACTGTGGGGGGAAGA
TGCTGATAAATTTGATGGTTCTAGACAGCCCGTGTTGGCTATCAAAGGAGCCCGAGTCTCTGTGATTTCGGTGGAC
GGAGCCTCTCCGTGCTGTCTTCAAGCAXCTATCATTGCGAATCCTGACATCCCAGAGGCCCTATAAGCTTCGTGGA
TGGTTTGACGCAGAAGGACAAGCCTTAGATGGTGTTCATCTCTGATCTAAAGAGCGGGGAGTCGGAGGGGAGT
AACACCAACTGGAAAACCTTGTATGAGGTCAAATCCGAGAACCTGGGCCAAGGCGACAAGCCGGACTACTTTAGT
TCTGTGGCCACAGTGGTGTATCTTCGCAAAGAGAACTGCATGTACCAAGCCTGCCGACTCAGGACTGCAATAAG
AAAGTGATTGATCAACAGAAATGGATTGTACCGCTGTGAGAAGTGCGACACCGAATTTCCCAATTTCAAGTACCGC
ATGATCCTGTGAGTAAATATTGCAGATTTTCAAGAGAATCAGTGGGTGACTTGTTTCCAGGAGTCTGCTGAAGCT
ATCCTTGGACAAAATGCTGCTTATCTTGGGGAATTAAGAGACAAGAATGAACAGGCATTTGAAGAAGTTTTCCAG
AATGCCAACTTCCGATCTTTTATATTTCAGAGTCAGGGTCAAAGTGGAGACCTACAACGACGAGTCTCGAATTAAG
GCCACTGTGATGGACGTGAAGCCCGTGGACTACAGAGAGTATGGCCGAAGGCTGGTTCATGAGCATCAGGAGAAGT
GCATTGATGTGAGAGGAGCAGTGCCAATCGGGCAGAAGTTTGCAAATAGGCAGAATGGAATCGATTTCTCCCAC
CTCCGTGTGACGATCCCATGTTAGCTACACAGTGCAGAGGCTCTTGATGGTGGACTAAGCAATTTCTCCCTCGT
GCGCATCTCAGAACCCATCGGTAGGCAAGGAAAATACGCTCAGGTGGTTGTGGTGTAGACTGTGTCAGGCCTAC
GGAGTCAGCCAGTGGCTAGCGCAAGACCAGTCACTCCCTCTGCCTTCAGGCTTCTGTCAATTTATTATCATCAA
GCAGGAATTATGTCGTAAGTCACTGACCCTAAGTGCAGACCATGAAGTAAATTATGTAAGTGGTTTTTGCTTCT
CCAGTGGTGACCAACCCCCCCCCATCCCCGCTCACAACCTGGGTTCTTCTCAGCGGGGCGAGCTGAGAAGCGGTCA
TGAGCACCTGGGGATTTTAGTAAGTGTGTCTTCCTA

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FIGURE 4651

GATGGCTGCGCTGTTGCTGAGACACGTTGGTCGTCATTGCCTCCGAGCCCACTTTAGCCCTCAGCTCTGTATCAG
AAATTGGTCTCTTCCCATGGCGATGTCCATCTGCCACCGTGGCACTGGTATTGCTTTGAGTGCAGGGGTCTCTCT
TTTTGGCATGTTGGCCGTGTTACTCCCTGGGAACTTTGAGTCTTATTTGGAACCTGTGAAGTCCCTGTGTCTGGG
GCCAGCACTGATCCACACAGCTAAGTTTGCACCTCGTCTTCCCTCTCATGTATCATACTGGAATGGGATCCGACA
CTTGATGTGGGACCTAGGAAAAGGCCCTGAAGATTCCCAGCTATACCAGTCTGGAGTGGTTGTCCTGGTTCTTAC
TGTGTTGTCTCTATGGGGCTGGCAGCCATGTGAAGAAAGGAGGCTCCCAGCATCATCTTCCTACACATTATTAC
ATTCACCCATCTTTCTGTTTGTCTATTCTTATCTCCAGCCTGGGAAAAGTTCTCCTTATTTGTTTAGATCCTTTTG
TATTTTCAGATCTCCTTGGAGCAGTAGAGTACCTGGTAGACCTTAATAGTGGAAAAGGGTCTAGTTTTCCCCTTG
TTTCTAAAGATGAGGTGGCTGXCAAAACTCCCCTTTTTTGCCACAGCTTGCCTACTCTCGGCCTAGAAGCAGT
TATTCTCTCTCCATATTGGGCTTTGATTTGTGCTGAGGGTCAGCTTTTGGCTCCTTCTTCTGAGACAGTGGAAA
CAATGCCAGCTCTXGTGGCTTCTXGCCCTGGGGACGGGCCGGGTGGGGGGTGGGTGGTGAGGCTTTGGGTGCCA
CTACCTGTGGGTTGCTGGCTTAAAGGACAATTCTCTTATTGGTGXAGAGCCCAGGCCATTAAACACCTACACAGT
GTTATTGAAAGAAGAGAGGTGGGGGTGGAGGGGAATTAGTCTGTCCCAGCTAGAGGGAGATAAAGAGGGCTAGTT
AGTTCTTGXGAGCAGCTGCTTTTGAGGAGAAAATATATAGCTTTGGACACGAGGAAGATCCAGAAAATTATCATT
GAACATATTAATGGTTATTTCTTTTCTTGATTTCXAGAAAAGCCTCTTAATTTTATGCTTTCTCATCGAAGT
AATGTACCCTTTTTTCTGAACTGAATTAAATACTCATTTT

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FIGURE 4652

MAALLLRHVGRHCLRAHFSPQLCIRNAVPLGTTAKEEMERFWNKNIGSNRPLSPHITIYSWSLPMAMSICHRGTG
IALSAGVSLFGMSALLPGNFESYLELVKSLCLGPALHTAKFALVFPLMYHTWNGIRHLMWDLGKGLKIPQLYQ
SGVVVLVLTIVLSSMGLAAM

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FIGURE 4653

GATGGCTGCGCTGTTGCTGAGACACGTTGGTCGTCATTGCCTCCGAGCCCACTTTAGCCCTCAGCTCTGTATCAG
AAATTGGTCTCTTCCCATGGCGATGTCCATCTGCCACCGTGGCACTGGTATTGCTTTGAGTGCAGATGTGGGACC
TAGGAAAAGGCCTGAAGATTCCCCAGCTATAACCAGTCTGGAGTGGTTGTCCTGGTTCTTACTGIGTTGTCCTCTA
TGGGGCTGGCAGCCATGTGAAGAAAGGAGGCTCCCAGCATCATCTTCCTACACATTATTACATTACCCATCTTT
CTGTTTGTCAATTCTTATCTCCAGCCTGGGAAAAGTTCTCCTTATTTGTTTAGATCCTTTTGATTTTTCAGATCTC
CTTGGAGCAGTAGAGTACCTGGTAGACCTTAATAGTGGAAAAGGGTCTAGTTTCCCCTTGTTTCTAAAGATGAG
GTGGCTGXCAAAAACCTCCCTTTTTTGGCCACAGCTTGCCCTACTCTCGGCCTAGAAGCAGTTAT

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FIGURE 4654

ATGGCCGCGCAGCGACCCCTGCGGGTCCTGTGCCTGGCGGGCTTCCGGCAGAGCGAGCGGGGCTTCCGTGAGAAG
ACCGGGGCGCTGAGGAAGGCGCTGCGGGGTCGCGCCGAGCTCGTGTGCCTCAGCGGCCCCGCACCCGGTCCCCGAC
CCCCGGGCCCCGAGGGCGCCAGATCAGACTTCGGGTCCTGCCCTCCGGAGGAGCAGCCTCGAGGCTGGTGGTTT
TCAGAGCAGGAGGCCGACGTTTTCTCCGCATTGGAAGAGCCCCGCGTCTGCAGGGGCTGGAGGAATCACTGGGG
ATGGTGGCACAGGCACTGAACAGGCTGGGGCCTTTTGACGGCCTTCTTGGTTTCAGCCAAGGGGCTGCGCTAGCA
GCCCTTGTGTGTGCCCTGGGCCAGGCAGGCGATCCCCGCTTCCCCTTGCCACGGTTTATCCTCTTGGTGTCTGGT
TTCTGTCCCCGGGGCATTGGGTTCAAGGAATCCATCCTGCAAAGGCCCTTGTCATTGCCTTCGCTCCATGTTTTT
GGGGACACTGACAAAGTCATCCCTCTCAGGAGAGTGTGCAACTGGCCAGCCAATTTCCCGGAGCCATCACCTC
ACCCACTCTGGTGGCCACTTCATTCCAGCAGCTGCACCCCAGCGTCAGGCCTACCTCAAGTTCTTGGACCAGTTT
GCAGAGTGAAGATCAAGAAATGTCTCTGCTCCTACATCCAGCTCCTCTAGGGGCAGCCTCCGTCATCCATGCCC
TCCCAGGACCTCCACTCACTGCTGTGAGTGCGCCTCACCAGAACCAGTTAAGAGACAACATATCAATTCTTGAGA
CCCAAATTATAAGGGCCCTGCCCTGTACTGAAGAAAAGGGGAGCACAAGGCCTTAATGGACATTGACTTGTGAAA
ACGCAAAACATGAATATGGTTGGAGAGCCCTGGATTAGGAGGGTGACATGGGGAAGGCAGAGGCTGGCAGCATGGT
GACTGCCACATAATAAAGTGGTGATTTGGATTTTG

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FIGURE 4655

MAAQRPLRVLC LAGFRQSERGFREKTGALRKALRGRAELVCLSGPHFVPDPPGPEGARSDFGSCPPEEQPRGWWF
SEQEADVFSALEEPAVCRGLEESLGMVAQALNRLGPF DGLLGFSQGAALAALVCALGQAGDPRFPLPRFILLVSG
FCPRGIGFKESILQRPLSLPSLHVFGDTDKVIPSQESVQLASQFPGAITLTHSGGHFIPAAAPQRQAYLKFLDQF
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FIGURE 4656A

GCGGCGAGGGCGCGGGGGCTCTGAGGACCGCTCGGCGCCGCTCCTGCCACACCATGGGCAGCGCAGAGGACGCA
GTCAAAGAGAACTGCTGTGGAACGTGAAGAAGGAGGTGAAGCAAATCATGGAGGAGGCTGTCAACCAGGAAGTTT
GTGCATGAAGACAGCAGCCACATCATTGCTTTATGTGGTGCACTGGAGGCTTGCCCTTGTGCATCAGCTGAGACGC
CGTGCCGCTGGCTTCTTGCAGTGACAAGATGGCAGCCTGTTTACCAAGGTGGGGAAGACGTGCCAGTGGCG
GGGAGATTGGCACAAGGTACAGGAGCTGCAGCAACAAGCAGAGGGCAGGAAACCTCAGGGGTGAGCCAGGAG
GCCCTGCGGAGACAGGGCTCAGCCAGCGGGAAGGCCCGGCCCTCAGCCCTCAGGCCTTGAAACACGTATGGGTA
CGCAGGCGCTCATCGAGAAAGTTCTGGACAAGGTCTGTGCAATACCTGGCGGAAAACCTGCAGCAAGTACTACGAG
AAGGAGGCACTGCTGGCAGACCTGTGTTCCGGCCGATCCTGGCCTCTCTTCTAGTGGGACCTGTGCTTGGAA
TACACTAAGCTCAAGACAGCCGATCACTACTGGACTGACCCCTCTGCTGATGAGCTGGTCCAGCGGCACCGCATC
CGGGGTCCACCTACTCGCCAGGACTCCCTTGCAAAGCGCCAGCCCTGGGGATCCGGAAACGGCACTCAAGCGGC
AGCGCTCGGAGGACAGGCTGGCTGCCGTGTCCCGGAGTGTGTGGAGTCCCTGCACCAGAACTACGGACGCGG
CTGCTCTATGGCAAGAACCACGTGCTGGTGACCCGAAGGAGGATATGGAGGCGGTCCCTGGCTACCTCTCCCTG
CACCAGTCTGCAGAGCCCTGACTCTGAAGTGGACCCCAACCAGCTCATGAATGGGACTCTGGGGGACTCCGAG
CTGGAAGAGAGCGTTTACTGGGACTATGCCCTCGTGGTGCCCTTCAGCCAGGTCTGTGTGCATCCACTGCCACCAG
CAAAAGAGCGGTGGCAGCCTTGTGCTGGTGAGCCAGGATGGCATCCAGAGGCCGCGCTGCATTTCCACAGGGA
GGACACCTGCTGTCTTTCTGTCTGTCTGGAGAATGGGCTGCTGCCTCGGGGACAGCTAGAGCCCCGCTGTGG
ACCCAGCAAGGGAAGGGGAAAGTGTTCCTCAAGCTACGGAACGAAGCAGCATTGCTCCGTGGATATGGAGGAG
ATGGGCACGGGGCGGGCCACCGACTATGTGTTCCGGATCATCTACCCCGCCACAGGCACGAGCACAACGCTGGT
GACATGATCGAGATGCAGGGCTTTGGGCCAGCTGCCACCTGGAGCCCTGTGCAGTCAGGGCTCC
TCCTGCCTCTCCTGCTCCTCCAGCAGCTCCCCACATGCAACCCCGAGCCACTGTAGCTGCATCCCCGACCGGTTG
CCGCTCAGGCTACTGTGTGAGAGTATGAAGAGGAGATCGTGTCCCGGCCCTTCTACGGCTGGCTGGCACACTGC
CGCCACCTGTCCACGGTGCGGACCCACCTGTCCGCGCTGGTGACCATAGCGTTATCCACCTGACCGGCCCCG
GGGGCTCCGCGGGCTCACCAGGACGTGTGGAGCAAGTATCAGAAGGACAAAAAGAACTACAAAGAGCTGGAG
CTGCTGCGGCAAGTTTACTACGGAGGCATAGAGCACGAGATCCGCAAGGACGTCTGGCCCTTTCTGCTTGGCCAC
TACAAGTTCGGCATGAGCAAGAAGGAGATGGAGCAGGTGGACGCGAGTGGTGAGCAAGGTACCAGCAGGTGTTG
GCAGAGTGGAAAGGCTGCGAGGTGGTGGTGAGGCAGCGGGAGCGGGAGGCCACCCAGCCACACGCACCAAGTTC
TCCTCAGGCAGCAGCATCGACAGCCACGTGCAGCGCTCATCCACCGAGACTCCACCATCAGCAACGATGTGTTT
ATCTCAGTGGATGATCTGGAACCCCGGAGCCCCAGGACCTGAAGATTCCAGACCAAAACCTGAGCAGGAAGCA
GGACCCGGGACTCCGGGCACCGCGGTGGTGGAGCAGCAGCATTCCGTGGAGTTCGACTCTCCAGACTCAGGACTG
CCCTCCTCTCGCAATTACTCCGTGGCTCGGGCATCCAGTCAAGCCTAGATGAGGGGCAGAGCGTGGGCTTCGAA
GAGGAGGACGGCGGTGGGGAGGAAGGCTCCAGTGGGCCCGGCCCTGCAGCTCACACTTTGAGGGAGCCCCAGGAT
CCCAGCCAGGAGAAGCCTCAGGCCGGAAGTGGAGGCCGAGAGGAGCTTGCGGCTGTGTGTGCGGCTGCCTAC
ACTATAGAATTACTGGACACTGTGGCTTAAACCTGCACCGCATAGACAAGGATGTGCAGAGGTGTGACCGCAAC
TACTGGTACTTCACGCCCCCAACCTCGAGAGGCTCAGAGACGTATGTGCAGCTACGTGTGGGAGCACCTGGAC
GTGGGCTATGTGCAGGGCATGTGCGATCTGCTGGCGCTCTCCTGGTCACCCTCGACAATGATCAGCTGGCCTAC
AGCTGCTTCAGCCACCTCATGAAGAGGATGAGCCAGAATTCCTCAACGGGGGTGCCATGGACACCCACTTTGCC
AACATGCGCTCCCTCATCCAGATCCTGGACTCAGAGCTGTTTGAGCTGATGCATCAGAATGGAGACTACACCCAC
TTCTACTTCTGTTATCGCTGGTTCTGCTGGATTTAAGAGAGAATGCTGTATGAGGATGTGTTTGCTGTGTGG
GAGGTGATCTGGGCAGCCAGGCACATCTCATCGGAGCACTTTGTCTGTTTATCGCCCTCGCCCTGGTGGAGGCC
TACCGAGAGATCATCCGTGACAACAACATGGACTTCACTGACATCATCAAGTTTTTCAATGAACGTGCTGAGCAT
CACGATGCCCAGGAGATCCTGCGGATTGCCCGGGACCTCGTCCACAAGGTGCAGATGCTCATAGAGAACAAGTGA
GCTGGGGCCAGGAGGCAGCAGCCGTGCAGAGCCTGGGCTCCGGCAGGGAGAGGTGCAGGGGAGTCACCGCCAGA
CCTCCCCAGCCACCAACCGACCCACCTCTGTTCTTAACAAAGCGTTGTGAGCCTGGATCCGACTCCCGGCAGT
GCTGACCTGTCAGGGCAAGTCAGGGGCCAGGATGCCCTCGGATCAGGGCCGGGATGGGAGGGGTGACCTCAGGG
AGCAGCTGCCTTGGGGGACACACCTACTCTGCTCCCTCTCACACATCTGGGAGTAGCCCCACTGCCACCTGCAG
CCGAGCCTGGACTGCTGCCACGAGTGAACCTGGGGCCCCACAGGATTAACAGGGGCTATAGCGGCTGGGCC
TACTCAGCTGGGGTGGCAGAGGGCGAGAGGCTCTGTGCTGTGTCCCTTCTGAGGGTCCCTTTGCAGTCCAGTAT
ATTGTGCGTGCACCAGCCCCAGCTGGAGCAACCAAACTGCTTCTGGTTTAGGCACACGTACGGGTGCGGGAGA

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FIGURE 4656B

CCCGGGCACGGGAGACCCGGGCGCCTTCAGGCCGCTCCCCGAGATTCTGGGGCAGTCGGAAGATGTGGGCCCT
GGGTGGGAGCAGCCCACTTCAGCAGCACTGCCACTGCCCTTTGGCCACCTGAGGTGACCCCCAGGCCTCCCCGGCC
TTGTACAGTGTTACCTCTGTGTATCTGTACAGCCTCGCTCCTGCCACCCACCCCTTGCGTTCTGCATTAGGTACTT
CCCTGAAAACCACGTGTAAGAAGTGATGCTTTTGCCAGTGATGATCTGGAATGCGACCGGAGCACTTGCTCTGA
GGAATCCCAGGGTGACTCTGTTCGGGGAAGAATCCGGTCACAGCCTCCCCCTCAGAGACAGGCCTCAGTTTCGAGGGC
AGCCCATTTATCTGTTCGAGACATCTGCCATGTCCCTGAGACTGCGGGAGGCAGGGGATGCATGGGTGTCCCCATC
TGTCCCTGGTGAGAAGCAAGGCTAGCTCTGCCCTTCCACATGCTTCTCAGGATGCCAAGAGGCCTAGGAACCCAGA
AACCCCTTGGAGGAGCTGTGTATGCGGGGGTGCCAGGAAGGGCATAGCTCCTGCCCCCAGGCCTAGGCATGCTG
CTTGCTCGGCCATCCCCACTTCCTCCTCTACCCCAACACATGCAGGCTAGGCCTTGCCCTGGAACATGGAGGCC
TGCCCGGGGCTGGGGCCTAGTCCAGCAGCCACCAAAGTCTGGCAGACTTTCTGCATTTGAGAAACATGACAAAGG
GCCCCGAGCCCTTCTGCACCCAGCACAGCCTGCCAGCCCAGCCCTGCCCCGGGCACTGCACAGCCTGTCTGG
GGCCAGACCACCCATTGTCCATCCTTGTGTCCGTGAGTCCTTGGCCTCCACCAAGCAGTGTGGCCATTGTG
TGCCTGCCCTTAGTGACTCCGTGGTTTTGTGAGGAGCAGAGTGTGTATGATTTTTGCCTCAGAACTATACTCTTC
TGTGTAACAGACCAATAAACAACATTTGTCAAC

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FIGURE 4657

MGSAEDAVKEKLLWNVKKEVKQIMEEAVTRKFBHEDSSHI IALCGAVEACLLHQLRRRAAGFLRSDKMAALFTKV
GKTCPVAGEICHKVQELQQQAEGRKPSGVSQEALRRQGSASGKAPALSPQALKHVWVRTALIEKVLDDKVVQYLAE
NCSKYEKEALLADPVFGPILASLLVGPCALEYTKLKTADHYWTDPSADELVQRHRIRGPPTRQDSPAHRPALGI
RKRHSSGSASEDRLAACARECVESLHQNSRTRLLYGKNHVLVQPKEDMEAVPGYLSLHQSAESLTLKWTNPQLMN
GTLGDSELEKSVYWDYALVVPFSQVVCIHCHQOKSGGTLVLVSQDGIQRPPLHFPQGGHLLSFLSCLENGLLPRG
QLEPPLWTQQGKGKVFPLRKRSSIRSVDMEEMGTGRATDYVFRIIYPGHRHEHNAGDMIEMQGFPSLPAAWHLE
PLCSQGSSCLSCSSSSSPHATPSHCSCIPDRLPLRLCESMKRQIVSRAFYGWLACRHLSTVRTHLSALVHHSV
IPDRPPGASAGLT KDVWSKYQKDKKNYKELELLRQVYGGIEHEIRKDVWPFLLGHYKFGMSKKEMEQQVDAVVA
ARYQQVLAEWKACEVVVRQREAH PATRTKFSSGSSIDSHVQRLIHRDSTISNDVFISVDDLEPPEPQDPEDSR
PKPEQEAGPGTPGTAVVEQQHSVEFDSPDGLPSSRNYSVASGIQSSLDEGQSVGFEEEDGGGEEGSSGPGPAAH
TLREPQDPSQEK PQAGELEAGEELAAVCAAAYTIELLDTVALNLHRIDKDVQRCDRNYWYFTPPNLERLRDVMCS
YVWEHLDVGYVQGMCDLLAPLLVTLNDQLAYSCFSLMKRMSQNFNGGAMDTHFANMRSLIQILDSELFELMH
QNGDYTHFYFCYRWFLDFKRELLYEDVFAVWEVIWAARHISSEHFVLFIALALVEAYREIIRDNNMDFTDIKF
FNERAEHHDAQEILRIARDLVHKVQMLIENK

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FIGURE 4658

CGCCGCCAGCTCCCAGCCGAGGCTTTCTCAACCGCGTCAATAAAAGGCCGCCCGACCCGCCCGCGCCCCGC
AGCCCTGCCGGACACCCCGGGCTGCAGCTGAGCGGGCGCAGACGGGCCGAGGCGGGCGCCGGGCGCGCAGGGACC
GAGGGACCGAGTGCTCCCCATGAGCGCACGTGGGCCGGGCGGTCCGCAAGCCCGGCTGAGAGCGCGCCATGGGGC
AGGCGGGCTGCAAGGGGCTCTGCCTGTGCGCTGTTGACTACAAGACCGAGAAGTATGTATCGCCAAGAACAAGA
AGGTGGGCTGCTGTACCGGCTGCTGCAGGCCCTCCATCCTGGCGTACCTGGTTCGTATGGGTGTTCTTGATAAAGA
AGGTTACCAAGACGTGACACCTCCCTGCAGAGTGCTGTATCACCAGTCAAGGGCGTGGCCTTCACCAACA
CCTCGGATCTTGGGCAGCGGATCTGGGATGTGCGCCGACTACGTCAATCCAGCCAGAATGAAGGCATTCTTGATG
GCGCGTGCTCCAAGGACAGCGACTGCCACGCTGGGGAAGCGGTTACAGCTGGAAACGGAGTGAAGACCGGCCGCT
GCCTGCGGAGAGAGAACTTGCCAGGGGCACCTGTGAGATCTTTCCTGGTGGCCGTTGGAGACAAGCTCCAGGC
CGGAGGAGCCATTCTGAAGGAGGCCGAAGACTTCACATTTTCATAAAGAACCACATCCGTTTCCCCAAATTCA
ACTTCTCAAAAGCAATGTGATGGACGTCAAGGACAGATCTTCTGAAATCATGCCACTTTGGCCCCAAGAACC
ACTACTGCCCATCTTCCGACTGGGCTCCGTGATCCGCTGGGCCGGGAGCGACTTCCAGGATATAGCCCTGGAGG
GTGGCGTGATAGGAATTAATATTGAATGGAACGTGTGATCTTGATAAAGCTGCCTCTGAGTGCCACCCTCACTATT
CTTTTAGCCGTCTGGACAATAAACTTTCAAAGTCTGTCTCCTCCGGGTACAACTTCAGATTTGCCAGATATTACC
GAGACGCAGCCGGGTGGAGTTCCGCACCCTGATGAAAGCCTACGGGATCCGCTTTGACGTGATGGTGAACGGCA
AGGGTGCTTTCTTCTGCGACCTGGTACTCATCTACCTCATCAAAAAGAGAGAGTTTTACCGTGACAAGAAGTACG
AGGAAGTGAGGGGCTAGAAAGACAGTTCCAGGAGGCCGAGGACGAGGCATCGGGGCTGGGGCTATCTGAGCAGC
TCACATCTGGGCCAGGGCTGCTGGGGATGCCGGAGCAGCAGGAGCTGCAGGAGCCACCCGAGGCGAAGCGTGGA
GCAGCAGTCAGAAAGGGAACGGATCTGTGTGCCACAGCTCCTGGAGCCCCACAGGAGCACGTGAATTGCCTCTG
CTTACGTTACAGGCCCTGTCTCTAAACCCAGCCGTCTAGCACCCAGTGATCCCATGCCTTTGGGAATCCCAGGATGC
TGCCCAACGGGAAATTTGTACATTGGGTGCTATCAATGCCACATCACAGGGACCAGCCATCACAGAGCAAAGTGA
CCTCCACGTCTGATGCTGGGGTCATCAGGACGGACCCATCATGGCTGTCTTTTGGCCCCACCCCTGCCGTCAGT
TCTTCCTTTCTCCGTGGCTGGCTTCCCGCACTAGGGAACGGGTTGTAAATGGGGAACATGACTTCCTTCCGGAGT
CCTTGAGCACCTCAGCTAAGGACCGCAGTGCCCTGTAGAGTTCTTAGATTACCTCACTGGGAATAGCATTGTGCG
TGTCCGGAAGAGGGCTCCATTTGGTTCCAGCCCACTCCCCTCTGCAAGTGCCACAGCTTCCCTCAGAGCATACTC
TCCAGTGGATCCAAGTACTCTCTCTCTCTAAAGACACCACCTTCTGCCAGCTGTTTGGCCCTTAGGCCAGTACACA
GAATTAAAGTGGGGGAGATGGCAGACGCTTTCTGGGACCTGCCAAGATATGTATTCTCTGACACTCTTATTGG
TCATAAAACAATAAATGGTGTCAATTC

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FIGURE 4659

GAACCGCCATCTTCCAGTAATTGCGCCAAATGACGAACACAAAGGGAAAGAGGAGAGGCACCGGATATATGTTCT
CTAGGCCTTTTAGAAAACATGGAGATGTTCCTTTGGCCACATATATGTGAATCTATAAGAAAGGTGATACTGTAG
ACATCAAGGGAATGGGTACTGTTCAAAAAGGAATGCCCCACAAGGGTTACCATGGCAAACTGGAAGAGTCTACA
ATGTTCCCCAGCATGCTGTTGGCATTGTTGTAAACAAACAAGTTAAGGGCAAGATTCTTGCCAAGAGAATTAATG
TGCGTATTGAGCACATAAAGCACTCTAAGAGCCGAGATAGCTTCCTGGAACGCGTGAAGGAAAATGATCAGAAAA
AGAAAGAAGCCAAAGAGAAAGGTACCTGGGTTCAACTAAAGCACCAGCCTGCTCCACCCAGGGAAGCACACTTTG
TGAGAACCAACGGAAGGCGCCTGAGCTGCTGGAACCTATTCCCTATGAATTCATGGCATAATAGGTGTTAAACA
AAAAAAAAATAAAGGATCTCTGGGCTAC

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FIGURE 4660

MRTQRERGEAPDICS LGLLENMEMFLWPHICEIYKKGDTVDIKMGTVQKGMPHKGYHGKTGRVYNVPQHAVGIV
V NKQVKGKILAKRINVRIEHIKHSKSRDSFLERVKENDQKKKEAKEKGTWVQLKHQPAPPREAHFVRTNGKAPEL
LEPIPYEFMA

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FIGURE 4661

GAAAGATGGCGGCTACCTTACTAGCTGCTCGGGGAGCCGGGCCAGCACCGGCTTGGGGGCCGGAGGCGTTCACTC
CAGACTGGGAAAGCCGAGAAGTTTCCACTGGGACCACTATCATGGCCGTGCAGTTTGACGGGGGCGTGGTTCTGG
GGGCGGACTCCAGAACAACCACTGGGTCCTACATCGCCAATCGAGTGACTGACAAGCTGACACCTATTCACGACC
GCATTTTCTGCTGTCTGCTCAGGCTCAGCTGCTGATACCCAGGCAGTAGCTGATGCTGTACCTACCAGCTCGGTT
TCCACAGCATTGAACTGAATGAGCCTCCACTGGTCCACACAGCAGCCAGCCTCTTTAAGGAGATGTGTTACCGAT
ACCGGGAAGACCTGATGGCGGGAATCATCATCGCAGGCTGGGACCCTCAAGAAGGAGGGCAGGTGTACTCAGTGC
CTATGGGGGGTATGATGGTAAGGCAGTCCTTTGCCATTGGAGGCTCCGGGAGCTCCTACATCTATGGCTATGTTG
ATGCTACCTACCGGGAAGGCATGACCAAGGAAGAGTGTCTGCAATTCAGTGCCAATGCTCTCGCTTTGGCCATGG
AGCGGGATGGCTCCAGTGGAGGAGTGATCCGCCTGGCAGCCATTGCAGAGTCAGGGGTAGAGCGGCAAGTACTTT
TGGGAGACCAGATACCCAAATTCGCCGTTGCCACTTTACCACCCGCCTGAATCCTGGGATTCTAGTATGCAATAA
GAGATGCCCTGTACTGATGCAAAATTTAATAAAGTTTGTACAGAG

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FIGURE 4662

MAATLLAARGAGPAPAWGPEAFTPDWESREVSTGTTIMAVQFDGGVVLGADSRITTTGSYIANRVTDKLTPIHDRI
FCCRSGSAADTQAVADAVTYQLGFHSIELNEPPLVHTAASLFKEMCYRYREDLMAGIIIAGWDPQEGGQVYSVPM
GGMMVRQSFAIGGSGSSYIYGYVDATYREGMTKEECLQFTANALALAMERDGSSGGVIRLAAIAESGVERQVLLG
DQIPKFAVATLPPA

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FIGURE 4663

GGGGGAAGATGGCGGCAGCCGTTCTGAGTGGGCCCTCTGCGGGCTCCGCGGCTGGGGTTCTGGCGGGACCGGGG
GTCTCTCGGCAGTGAGCTCGGGCCCGCGGCTCCGCCTGCTGCTGCTGGAGAGTGTTCCTGGTTTGCTGCAACCTC
GAACGGGGTCTGCCGTTGCTCCGGTGCATCCCCAAACCGCTCGGCCCCACATTTGCCCGGGCTCATGTGCCTAT
TGCGGCTGCATGGGTGGTGGCGGGGCCAGAACCTTTCAGCTCTTGGGGCATTGGTGAGTCTCAGTAATGCAC
GTCXTXXCAGTTCATCAAACTCGGTTTGAGGGCCTGTGTCTGCTGTCCCTGCTGGTAGGGGAGAGCCCCACAG
AGCTATTCCAGCAGCACTGTGTGTCTTGGCTTCGGAGCATTCAGCAGGTGTTACAGACCCAGGACCCGCCTGCCA
CAATGGAGCTGGCCGTGGCTGTCTGAGGGACCTCCTCCGATATGCAGCCCAGCTGCCTGCACTGTTCCGGGACA
TCTCCATGAACCACCTCCCTGGCCTTCTCACCTCCCTGCTGGGCCCTCAGGCCAGAGTGTGAGCAGTCAGCATTGG
AAGGAATGAAGGCTTGTATGACCTATTTCCCTCGGGCTTGTGGTTCTCTCAAAGGCAAGCTGGCCTCATTTTTTC
TGTCTAGGGTGGATGCCTTGAGCCCTCAGCTCCAACAGTTGGCCTGTGAGTGTTATTCGCGCTGCCCTCTTTAG
GGGCTGGCTTTTCCCAAGGCCTGAAGCACACCGAGAGCTGGGAGCAGGAGCTACACAGTCTGCTGGCCTCACTGC
ACACCCTGCTGGGGGCCCTGTACGAGGGAGCAGAGACTGCTCCTGTGCAGAATGAAGGCCCTGGGGTGGAGATGC
TGCTGTCTCAGAAGATGGTGTATGCCCATGTCTTCTCCAGCTTCGGCAGAGGTTTCGGGACTGGCCCGCTGCC
TAGGGCTCATGCTCAGCTCTGAGTTTGAGCTCCCGTGTCCGTCCCTGTGCAGGAAATCCTGGATTTCATCTGCC
GGACCCTCAGCGTCAGTAGCAAGAATATTAGCTTGAGATGGATGGTCCCTGCGGCTGCTGCTGCTGCCCTCTA
TCCACCTTGAGGCCTTGAGCCTGCTGTCTGCACTCATCCTCGCGTGTGGAAGCCGGCTCTTGCGCTTTGGGATCC
TGATCGGCCGCTGCTTCCCCAGGTCCCTCAATTCTGGAGCATCGGTAGAGATTCCCTCTCTCCAGGCCAGGAGA
GGCCTTACAGCACGGTTCCGACCAAGGTGTATGCGATATTAGAGCTGTGGGTGCAGGTTTGTGGGGCCTCGCGG
GAATGCTTCAGGGAGGAGCCTCTGGAGAGGCCCTGCTCACCCACCTGCTCAGCGACATCTCCCCGCCAGCTGATG
CCCTTAAGCTGCGTAGCCCGCGGGGGAGCCCTGATGGGAGTTTGCAGACTGGGAAGCCTAGCGCCCCAAGAAGC
TAAAGCTGGATGTGGGGGAAGCTATGGCCCCGCCAAGCCACCGGAAAGGGGATAGCAATGCCAACAGCGACGTGT
GTGCGGCTGCACTCAGAGGCCCTCAGCCGACCATCCTCATGTGTGGGCCTCTCATCAAGGAGGAGACTCACAGGA
GACTGCATGACCTGGTCTCCCCCTGGTCATGGGTGTACAGCAGGGTGAGGTCTAGGCAGCTCCCGTACACGA
GCTCCCGCTGCCGCCGTGAACCTTACTGCCTGCTGCTGGCGCTGCTGCTGGCCCCGTCTCCTCGCTGCCACCTC
CTCTTGCTGTGCCCTGCAAGCCTTCTCCCTCGGCCAGCGAGAAGATAGCCTTGAGGTCTCCTCTTTCTGCTCAG
AAGCACTGGTGACCTGTGTGCTCTGACCCACCCCCGGGTTCTCCCTGCAGCCCATGGGCCCCACCTGCCCCA
CACCTGCTCCAGTTCCCCCTCCTGAGGCCCATCGCCCTTCAGGGCCCCACCGTTCCATCCTCCGGGCCCCATGC
CCTCAGTGGGCTCCATGCCCTCAGCAGGCCCATGCCTTCAGCAGGCCCATGCCCTCAGCAGGCCCTGTGCCCT
CGGCACGCCCTGGACCTCCACCACAGCCAACCACTAGGCCTTTCTGTCCAGGCCTAGTGTCTGTCCCTCCCC
GGCTTCTTCTTGGCCCTGAGAACCACCGGCAGGCTCAAATGAGGACCCCATCCTTGCCCTAGTGGGACTCCCC
CACCTACTATACCCCCAGATGAACTTTTGGGGGAGAGTGCCAGACCAGCCTTTGTCCACTATGACAAGGAGG
AGGCATCTGATGTGGAGATCTCCTTGGAAGTGACTCTGATGACAGCGTGGTGATCGTGCCCGAXGGGGCTTCCC
CCCCCTGCCACCCCCACCCTCAGGTGCCACACCACCCCTATAGCCCCACTGGGCCACCAACAGCCTCCCC
TCTGTGCCAGCGAAGGAGGAGCCTGAAGAACTTCTGACGCCAGGGCCTCTCCCGCCACCCCCACCTCCGCC
GCCGCTGTTCCTGGTCTGTGACGCTCCCTCCACCCAGTTGGTCCCTGAAGGGACTCCTGGTGGGGGAGGACC
CCCAGCCCTGGAAGAGGATTGTACAGTTATTAATATCAACAGCAGTGATGAAGAGGAGGAGGAAGAGGAAGA
GGAAGAAGAAGAAGAGGAAGAAGAGGAGGAAGAGGAGGAGGATGAAGAGGAATATTT
TGAAGAGGAAGAAGAGGAGGAAGAAGAGTTTGAAGGAAGAATTTGAAGGAAGAAGAAGGTGAGTTAGAGGAAGA
AGAAGAGGAGGATGAGGAGGAGGAAGAAGAACTGGAAGAGGTGGAAGACCTGGAGTTTGGCACAGCAGGAGGGGA
GGTAGAAGAAGGTGCACCTCCACCCCCAACCTGCCTCCAGCTCTGCCTCCCCCTGAGTCTCCCCAAAGGTGCA
GCCAGAACCCGAACCTGAACCCGGGCTGCTTTTGAAGTGGAGGAGCCAGGGACGGAGGAGCGTGGGGCTGA
CACAGCTCCCACCTGGCCCCCTGAAGCGCTCCCCTCCCAGGGAGAGGTGGAGAGGGAAGGGGAAAGCCCTGCGGC
AGGGCCCCCXTXCCXXCCAGGAGCTTGTTGAAGAAGAGCCCTCTGCTCCCCCAACCCTGTTGGAAGAGGAGACT
GAGGATGGGAGTGACAAGGTGCAGCCCCCACCAGAGACACCTGCAGAAGAAGAGATGGAGACAGAGACAGAGGCC
GAAGCTCTCCAGGAAAAGGAGCAGGATGACACAGCTGCCATGCTGGCCGACTTCATCGATTGTCCCCCTGATGAT
GAGAAGCCACACCTCCCACAGAGCCTGACTCCTAGCCATCTTCTGCACCCCACTCTTTGTTCCAATAAAGTTA
TGTCTTAGATAGCG

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FIGURE 4664

MAAAVLSGPSAGSAAGVPGGTGGLSAVSSGPRLRLLLLLESVSGLLQPRTGSAVAPVHPPNRSAPHLPGMLCLLRL
HGSVGGAQNLSALGALVSLSNARLSSIKTRFEGLCLLSLLVGESPTLFFQQHCVSWLRSIQQVLQTQDPPATMEL
AVAVLRDLLRYAAQLPALFRDISMNHLPGLLTSLLGLRPECEQSALEGMKACMTYFPRACGSLKGKLASFFLSRV
DALSPQLQQLACECYSRPLSLGAGFSQGLKHTEWEQELHSLLASLHTLLGALYEGAETAPVQNEGPGVEMLLSS
EDGDAHVLLQLRQRFSGLARCLGLMLSSEFGAPVSVFVQEILDFICRTLSVSSKNISLHGDGPLRLLLLLPSIHLE
ALDLLSALILACGSRLRLFRGILIGRLLPQVLNSWSIGRDSLSPGQERPYSTVRTKVYAILELWVQVCGASAGMLQ
GGASGEALLTHLLSDISPPADALKLRSPRGSPDGS LQTGKPSAPKKLKLDVGEAMAPP SHRKGDSNANS DVCAA
LRGLSRTILMCGPLIKEETHRRLHDLVLPVLMGVQQGEVLGSSPYTSSRCRRELYCLLLALLLAPSPRCPPPLAC
ALQAFSLGQREDSLEVSSFCSEALVTCAALTHPRVPLQPMGPTCPTPAPVPPPEAPSPFRAPPFHPPGPMPSVG
SMPSAGPMPSAGPMPSAGPVPSARPGPPTTANHLGLSVPLVSVPPRLLPGPENHRAGSNEDPILAPSGTTPPTI
PPDETFGGRVPRPAFVHYDKEEASDVEISLESDDSVVIVPEGLPPLPPPPPSGATPPP IAPTGPPTASPPVPA
KEEPEELPAAPGPLPPPPPPPPVPGPVTLPPLQVPEGTPGGGGPPALEEDLTVININSSDEEEEEEEEEEEEE
EEEEEEEEEDFEEEEDEEEYEEEEEEEEEEFE
APPPPTLPPALPPPESPPKVQPEPEPEPGLLLEVEEPGTEEERGADTAPTLAPEALPSQGEVEREGESPAAGPPP
QELVEEEP SAPPTLLEETEDGSDKVQPPPETPAEEEMETETEAALQEKEQDDTAAMLADFIDCPPDDEKPPPP
TEPDS

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FIGURE 4665

ACAGCGAGCGGAGCCGCGGTCCGGACGGCAGCGCGTGCCCCGAGCTCTCCGCCTCCCCCGCCCGCCAGCCGAGG
CAGCTCGAGCCCAGTCCGCGGCCCCAGCAGCAGCGCCGAGAGCAGCCCCAGTAGCAGCGCCATGCGCCGGGTGGAA
CGCCTACATCGACAACCTCATGGCGGACGGGACCTGTCAGGACGCGGCCATCGTGGGGCTACAAGGACTCGCCCTC
CGTCTGGGCGCGCGTCCCCGGGAAAACGTTTCGTCAACATCACGCCAGCTGAGGTGGGTGTCCTGGTTGGCAAAGA
CCGGTCAAGTTTTTACGTGAATGGGCTGACACTTGGGGGCCAGAAATGTTTCGGTGATCCGGGACTCACTGCTGCA
GGATGGGGAATTTAGCATGGATCTTCGTACCAAGAGCACCGGTGGGGCCCCACCTTCAATGTCACTGTCACCAA
GACTGACAAGACGCTAGTCCTGCTGATGGGCAAAGAAGGTGTCCACGGTGGTTTGATCAACAAGAAATGTTATGA
AATGGCCTCCCACCTTCGGCGTTCCCAGTACTGACCTCGTCTGTCCCTTCCCCTTACCCGCTCCCCACAGCTTTC
CACCCCTTTCCTCCCCATACACACACAAACCATTTTATTTTTTGGGGCATTACCCCATACCCCTTATTGCTGCCA
AAACCACATGGGCTGGGGGCCAGGGCTGGATGGACAGACACCTCCCCCTACCCATATCCCTCCCGTGTGTGGTTG
GAAAACTTTGTTTTTTGGGGTTTTTTTTTCTGAATAAAAAAGATTCTACTAACAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAA

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FIGURE 4666

MAGWNAYIDNLMADGTCQDAAIVGYKDSPSVWAAVPGKTFVNITPAEVGVLVGKDRSSFYVNGLTGGQKCSVIR
DSSLQDGEFSMDLRTKSTGGAPTFNVTVTKTDKTLVLLMGKEGVHGGLINKKCYEMASHLRRSQY

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FIGURE 4667A

GGGGGGTCGGTGTGGGGTAGAATGGCCGCTGCCGCCGTCACCCGCGGGACCCCGGGAGCACAGACTCCCCCTCCC
CCCGGCCCTCAGGCCGGGGGTGACCTTGCCCCCTGGAGCCCTCACCATGAATACCAAGGACACCACCGAGGTTG
CTGAAAACAGCCACCACCTGAAGATCTTTCTCCCCAAGAAGCTGCTGGAGTGTCTTCTCGCTGCCCGCTGCTGC
CTCCAGAGAGGCTACGGTGGAAATACAAATGAGGAGATTGCATCCTACCTGATCACCTTTGAGAAGCATGATGAGT
GGCTGTCTTGTGCCCAAAGACAAGGCCCTCAGAATGGCTCCATCATCCTCTACAATCGCAAGAAGGTGAAATATC
GGAAGGATGGTTACCTCTGGAAGAAGCGGAAGGATGGGAAGACCACCCGAGAGGACCACATGAAGCTGAAGGTCC
AGGGCATGGAGTGTCTCTATGGCTGCTACGTTCACTCTTCCATCGTCCCCACATTCCATCGGCGCTGCTACTGGC
TGCTCCAGAACCCTGACATCGTCTTGTGCACTACCTGAACGTCCAGCCCTGGAGGACTGTGGAAAGGGCTGCA
GCCCCATCTTTTGTTCATCAGCAGCGACCGTCGAGAGTGGCTGAAGTGGTCCCGGGAGGAGTTGTTGGGACAGC
TGAAGCCCATGTTTCATGGCATCAAGTGGAGCTGCCGGAATGGAACAGAAGAGTTCTCTGTAGAACACCTGGTGC
AGCAGATTTTGGACACCCACCCAACCAAGCCTGCTCCCCGAACCCACGCCTGTCTCTGCAGTGGGGGGCTTGGTT
CTGGGAGCCTTACCCACAAATGCAGCAGCAGAAACACCGCATCATCTCTCCCAAAGTGGAGCCCCGAGCTTTAA
CCCTGACCTCTATCCCCACGCTCACCCCCAGAGCCTCCTCCACTGATAGCCCCACTTCCCCAGAGCTCCCCA
AGGCACACACTCCCCATCTTCTTCTCTTCTTCTCCTCATCAGGTTTTCAGAGCCCCCTAGAAATCAGACCTA
GCCCCCTCCACTTCTCGAGGGGGTCTTCAAGAGGAGGCACTGCTATCCTCCTCTGACAGGACTGGAGCAGCGGG
CTGGAGGCTTGACGCCCACAGGCCTTGGCTCCACAGGCTGATCCTAGGCCTTCCATGAGTTTGGCAGTGGTTG
TAGGCACTGAGCCTTCTGCCCCACAGCTCCTCCAGTCTGCTTTCACCTGATCGTTTTCTCAACAGCCCCC
AGAGGGGCCAGACATATGGAGGGGGGAGGAGTAAGCCAGACTTCCCCGAGGAGAGGCGGCTCATACCCCT
GTTCTGCCCTAGAGCCTGCTGCTGCCCTGGAGCCCCAGGCAGCTGCTCGGGTCCCCACACAGTCAGTAGCAG
GTGGGAGAAGAGGAAACTGCTTCTTCATCCAAGATGATGACAGTGGGAGGAGCTCAAGGTCACGGGGCTGCC
CACCCATACCTTACCCCCCTCCTCACCCCCACCTCACCTGCCCCCTTGGAGCCGTCAGAGCAGGAGGAGAG
GAGAGGCCCTTGTGGAGGACCTGTTGGGGCCAGTGAACGGAGCCCTTCAGTCTTTCATCATTCCCAGACCTTA
TGGGAGAAGCTCATCAGTGACGAAGCTCCAAGCATCCCTGCTCCGACCCCCAGCTGTCTCCTGCTCTTAGCACC
TCACAGACTTCTCCCCAGAGTGGTCTTACCCAGAGGGTGGGGTCAAGGTGCTCATCAGGTCCTTGGACCGAAG
CCGCCGAGCATTACTCCTGTGTCTTTGATCACATCGCAGTGCCAGCCTCACTTGTCCAGCCTGGTGTCTTACGCT
GCTACTGTCCCGCCCATGAGGTAGGGCTGGTGTCTTTCAGGTTGGCAGGGCGGGAGGGGCCCCCTTCTGCTTCTG
TGCTCTTTGAGTATCGAGCCCGCCGATTCTGTCTCTGCCTAGTACTCAACTTGACTGGCTGTCACTGGACGACA
ACCAGTTCCGGATGTCCATACTAGAGCGACTGGAGCAGATGGAGAAGCGGATGGCAGAGATCGCAGCAGCTGGGC
AGGTGCCTTGCCAGGGTCTGATGCTCCTCCAGTTCAGGATGAAGGCCAGGGGCTGGGTTGGAAGCAGGGTAG
TGGTCTTGGTAGAAAGCATGATCCACGCTCCACCTGGAAGGGTCTGAACGTCTGGCCCATGGAAGCCCCCTTCC
GGGGCATGAGCCTTCTGCACCTGGCTGCTGCCCAGGGCTATGCCCGCCTCATCGAGACCCTGAGCCAGTGGCGGA
GTGTGGAGACTGGAAGCTTGGACTTAGAGCAGGAGGTTGACCCGCTCAACGTGGATCATTTCTCTTGACCCCTC
TGATGTGGGCTTGTGCCCTGGGACACCTGGAAGCTGCTGTGCTCCTTTCCGTTGGAACCGACAGGCACTGAGCA
TTCCCGACTCTCTGGGCCGTCTGCCATTGTCTGTGGCTCATTCCCGGGGTCATGTGCGCCTTGCCCGCTGCCTTG
AGGAAGTACAGAGACAGGAGCCTTCGGTGGAGCCCCCATTTGCCCTATCGCCACCCTCCTCCAGCCCAGACACTG
GTCTGAGCAGCGTCTCCTGCCCTCGGAGCTGTGCGATGGCACCTTTCCGTCACGTACGCTATTCTAGTGCCC
CAGATGGCAGTCCCCCCCCCTGCACCTCTGCCAGCCTCTGAGATGACTATGGAGGACATGGCCCCAGGCCAGCTTT
CCTCTGGTGTCCAGAAGCCCCCTACTCCTCATGACTATGAGGCTACCAACTCCAAGGGGCCCTCTCCTCCC
TTCCTGCCCTCCCACCAGCTTCAGATGATGGGGCTGTCCAGAGGACGCTGACAGCCACAGGCTGTGGATGTGA
TCCCGGTGGACATGATCTCACTAGCCAAGCAGATCATCGAAGCCACACCGGAGCGGATTAAACGAGAGGACTTCG
TGGGGCTGCCGAGGCTGGAGCCTCAATGCGGGAGCGGACAGGGGCTGTGGGGCTCAGTGAGACCATGTCTGGC
TGGCCAGCTACCTGGAGAATGTGGACATTTCCCCAGCTCAACCCCTCCAGCGAACTGCCCTTTGAGCGAGGTC
GCCTGGCTGTCCCTTACGACCCCTCCTGGGCAGAGTTTCTCTCTGCATCCACAGTGGCAAGATGGAAGTGATT
TTGCCCTGTGACACTATCAGATCACGAGCAGCGGGAAGTGTATGAGGCTGCCCGAGTCATCCAGACGGCCTTCC
GAAAGTACAAGGGCCGCGGCTGAAGGAGCAGCAGGAGGTAGCAGCAGCTGTAATCCAGCGCTGTTACCGGAAGT
ACAAGCAGCTGACCTGGATTGCACTTAAGTTTGCACTCTATAAGAAGATGACCCAGGCGGCCATCCTGATCCAGA
GCAAGTTCCGAAGCTACTATGAACAGAAGCGATTTTCAGCAGAGCCGCCGAGCGGCTGTGCTCATCCAGCAGCACT
ACCGCTCCTACCGCCGAGGCCCGGCCCTCCCCACCGGACTTCGGCCACCCTGCCTGCCCGCAACAAAGGCTCCT

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FIGURE 4667B

TTCTCACCAAGAAGCAGGACCAGGCAGCCCGGAAGATCATGAGATTCTGCGGCGCTGCCGACACAGGATGAGGG
AACTGAAGCAGAACCAGGAGCTGGAAGGGCTTCCCCAGCCGGGACTGGCCACATGACCTGGCCACCGCCTTTCTC
ACCACCCTGGGGGCGCCTCGTGCACTCTTAACAGGGAGAGGGCTTTCTGGGGCAGGGGGAGCCCCCTGTCGGCAGC
TTTCCTGTTACCTTTGTTGGAGCCCTCTGTAGGCCTCCTCCCTCCTCCCCACGCCTTGCTCCACACCCCTCTC
CTCGTCCCTCCTGGTCGTGCCCCGTCTCTTTTGGTCCTGGCTCCAGAAAACCCGCGCCCCACATACCTGCATCTT
CCGCTGTGACCTCCGGAGCCCTGCCTGCCCCCTGCTCCCCAGCTCCTCCTGCCTGCACCCGACTCGGCCCCCTCCT
GACTTGCCCTATTTATTTGTTTCGACGCGTCTCTGAATGTATCCGCTCGGTTCCCACCACTGCCTTCGCTGCGCA
CGCCCCCTCGTGTTTCAGGGCTGACCGTGTCCCCACCCGACTCCGCATGTTTGCGTCTGTTTCCTCCCTCTCTGGC
CCTGTCTTACCCCATCACCAGACTCTGGCCACTGACCTCAGGGCCGAAGGGGAGGTGGTGTACATAGGAACGCGT
TGCGGAGTCCGCCCCGTCCCCCGAGGGGAGGGGTCTTGTACATACTGTAACATACAGAGTATAGTGAAGAATCTA
TTTAAGGCGCCGCGGGGAGGGCTGCACGGCCGGGCTTGTGGTTCTCTAGCGCGGCGGGGGCCTCCTGCCGGCTCC
ACGGGCACTTTCTACTTGTGCATGGGCTTGGTTTATACGAATTGCCATTAAACATCGCTGCACC

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FIGURE 4668

MNTKDTTEVAENSHHLKIFLPKKLLECLPRCPLLPPERLRWNTNEEIASYLITFEKHDEWLSCAPKTRPQNGSII
LYNRKKVKYRKDGYLWKKRKDGKTTREDHMKLVQGMECLYGCYVHSSIVPTFHRRCYWLLQNPDIVLVHYLNVP
ALED CGKGCSPIFCSISSDRREWLKWSREELLGQLKPMFHGIKWSCGNGTEEF SVEHLVQQIILDTHPTKPAPRTH
ACLCSSGGLGSGSLTHKCSSTKHRIISP KVEPRALT LTSIPHAHPPEPPPLIAPLPPELPKAHTSPSSSSSSSSSG
FAEPLEIRPSPPTSRGGSSRGGTAILLLTGLEQRAGGLTPTRHLAPQADPRPSMSLAVVVGTEPSAPPAPPSPAF
DPDRFLNSPQRGQTYGGGQGVSPDFPEAEAAHTPCSALEPAAALEPQAAARGPPPQSVAGGRRGNCFFIQDDDSG
EELKGHGAAPP IPSPPSPPPSPAPLEPSSRVGRGEALFGGPVGASELEPFSLSSFPDLMGELISDEAPSIPAPT
PQLSPALSTITDF SPEWSYPEGGVKVLITGPWTEAAEHYSCVFDHIAVPASLVQPGVLR CYCPAHEVGLVSLQVA
GREGPLSASVLF EYRARRFLSLPSTQLDWLSLDDNQFRMSILERLEQMEKRMAEIAAAGQVPCQGPDAPPVQDEG
QGPGEARVVVLVESMIPRSTWKGPERLAHGSPFRGMSLLHLAAAQGYARLIETLSQWRSVETGSLDLEQEVDP
NVDHFSCTPLMWACALGHLEAAVLLFRWNRQALSIPDSLGRPLPSVAHSRGHVRLARCLEELQRQEPSVEPPFAL
SPPSSSPDTGLSSVSSPSELSDGTF SVTSAYSSAPDGSPPPAPLPASEMTMEDMAPGQLSSGVPEAPLLLMDYEA
TNSKGPLSSLPALPPASDDGAAPEDADSPQAVDVIPVDMISLAKQIEATPERIKREDFVGLPEAGASMRERTGA
VGLSETMSWLASYLENVDHFPSSTPPSELPFERGRLAVPSAPSWAEFLSASTSGKMESDFALLTSLDHEQRELYE
AARVIQTAFRKYKGRRLKEQQEVAAAVIQRCYRKYKQLTWIALKFALYKKMTQAAILIQSKFRSYEYQKRQQSR
RAAVLIQQHYRSYRRRPGPPHRTSATLPARNKGSFLT KQDQAARKIMRFLRRCRHRMRELKONQELEGLPQPG
AT

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FIGURE 4669

AGGACGTGGGCGTGACAGGACGCGGGCGTGACAGGACGCCAGAGCTGGGTCAGAGCTCGAGCCAGCGGCGCCCGGAG
AGATTTCGGAGATGACAGGCGGGCTCGGATGGCCGCGAGCTTGGGGCGGCAGCTGCTGAGGCTCGGGGGCGGAAGCTC
GCGGCTCACGGCGCTCCTGGGGCAGCCCCGGCCCCGGCCCTGCCCGGCGGCCCTATGCCGGGGGTGCCGCTCAGCT
GGCTCTGGACAAGTCAGATTCCCACCCCTCTGACGCTCTGACCAGGAAAAAACCGGCCAAGGCGGAATCTAAGTC
CTTTGCTGTGGGAATGTTCAAAGGCCAGCTCACCACAGATCAGGTGTTCCCATACCCGTCCGTGCTCAACGAAGA
GCAGACACAGTTTCTTAAAGAGCTGGTGGAGCCTGTGTCCCGTTTCTTCGAGGAAGTGAACGATCCCCGCAAGAA
TGACGCTCTGGAGATGGTGGAGGAGACCACTTGGCAGGGCCTCAAGGAGCTGGGGGCCCTTTGGTCTGCAAGTGCC
CAGTGAGCTGGGTGGTGTGGGCCCTTTGCAACACCCAGTACGCCCGTTTGGTGGAGATCGTGGGCATGCATGACCT
TGGCGTGGGCATTACCTTGGGGGCCATCAGAGCATCGGTTTCAAAGGCATCCTGCTCTTTGGCACAAGGCCCA
GAAAGAAAAATACCTCCCCAAGCTGGCATCTGGGGAGACTGTGGCCGCTTTCTGTCTAACCGAGCCCTCAAGCGG
GTCAGATGCAGCCTCCATCCGAACCTCTGCTGTGCCAGCCCTGTGGAAAAATACTATACCTCAATGGAAGCAA
GCTTTGGATCAGTAATGGGGGCCTAGCAGACATCTTCACGGTCTTTGCCAAGACACCAGTTACAGATCCAGCCAC
AGGAGCCGTGAAGGAGAAGATCACAGCTTTTGTGGTGGAGAGGGGCTTCGGGGGCATTACCCATGGGCCCCCTGA
GAAGAAGATGGGCATCAAGGCTTCAAACACAGCAGAGGTGTTCTTTGATGGAGTACGGGTGCCATCGGAGAACGT
GCTGGGTGAGGTTGGGAGTGGCTTCAAGGTTGCCATGCACATCCTCAACAATGGAAGGTTTGGCATGGCTGCGGC
CCTGGCAGGTACCATGAGAGGCATCATTGCTAAGGCGGTAGATCATGCCACTAATCGTACCCAGTTTGGGGAGAA
AATTCACACTTTGGGCTGATCCAGGAGAAGCTGGCACGGATGTTATGCTGCAGTATGTAAGTGGTCCATGGC
TTACATGGTGGTGGTAAACATGGACCAGGGAGCCACGGACTTCCAGATAGAGGCCGCCATCAGCAAAATCTTTGG
CTCGGAGGCAGCCTGGAAGGTGACAGATGAATGCATCCAAATCATGGGGGGTATGGGCTTCATGAAGGAACCTGG
AGTAGAGCGTGTGCTCCGAGATCTTCGCATCTTCCGGATCTTTGAGGGGACAAATGACATTCTTCGGCTGTTTGT
GGCTCTGCAGGGCTGTATGGACAAAGGAAAGGAGCTCTCTGGGCTTGGCAGTGCTCTAAAGAATCCCTTTGGGAA
TGCTGGCCTCCTGCTAGGAGAGGCAGGCAACAGCTGAGGCGGCGGGCAGGGCTGGGCAGCGGCCTGAGTCTCAG
CGGACTTGTCCACCCGGAGTTGAGTCGGAGTGGCGAGCTGGCAGTACGGGCTCTGGAGCAGTTTGCCACTGTGGT
GGAGGCCAAGCTGATAAAACACAAGAAGGGGATTGTCAATGAACAGTTTCTGCTGCAGCGGCTGGCAGACGGGGC
CATCGACCTCTATGCCATGGTGGTGGTTCTCTCGAGGGCCTCAAGATCCCTGAGTGAGGGGCCACCCACGGCCCA
GCATGAGAAAATGCTCTGTGACACCTGGTGTATCGAGGCTGCAGCTCGGATCCGAGAGGGCATGGCCGCCCTGCA
GTCTGACCCCTGGCAGCAAGAGCTCTACCGCAACTTCAAAGCATCTCCAAGGCCTTGGTGGAGCGGGGTGGTGT
GGTCACCAGCAACCCACTTGGCTTCTGAATACTCCCGGCCAGGGCCTGTCCAGTTATGTGCCTTCCCTCAAGCC
AAAGCCGAAGCCCTTTCTTAAAGGCCCTGGTTTGTCCCGAAGGGGCCTAGTGTTCAGCACTGTGCCTGCTCT
CAAGAGCACTTACTGCCTCGCAAATAATAAAAAATTTCTAGCCAG

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FIGURE 4670

MQAARMAASLGRQLRLGGGSSRLTALLGQPRPGPARRPYAGGAAQLALDKSDSHPSDALTRKKPAKAESKSFV
GMFKGQLTTDQVFPYPSVLNEEQTQFLKELVEPVSRFFEEVNDPAKNDALEMVEETTWQGLKELGAFGLQVPSEL
GGVGLCNTQYARLVEIVGMHDLGVGITLGAHQSIGFKGILLFGTKAQKEKYLKPLASGETVAAFCLTEPSSGSDA
ASIRTSAPVSPCGKYYTLNGSKLWISNGGLADIFTVFAKTPVTDPATGAVKEKITAFVVERFGGITHGPPEKKM
GIKASNTAEVFFDGVRVPSENVLGEVSGGFKVAMHILNNGRFGMAAALAGTMRGIIAKAVDHATNRTQFGEKIHN
FGLIQEKLARMVMLQYVTESMAYMVSANMDQGATDFQIEAAISKIFGSEAAWKVTDECIQIMGGMGFMKEPGVER
VLRDLRIFRIFEGTNDILRLFVALQGCMGKELSGLSALKNPFGNAGLLLGEAGQLRRRAGLGSGLSLSGLV
HPELSRSGELAVRALEQFATVVEAKLIKHHKGIVNEQFLLQRLADGAIDLYAMVVLSRASRSLSEGHPTAQHEK
MLCDTWCIEAAARIREGMAALQSDPWQQELYRNFKSISKALVERGGVVTSNPLGF

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FIGURE 4671

GAGACCATGGCGGGTAGCAGCACTGGGGGCGGTGGGGTTGGGGGAGACGAAGGTGATTTACCACCTGGATGAGGAA
GAGACTCCCTACCTGGTGAAGATCCCTGTCCCCGCCGAGCGCATCACCTCGGCGATTTCAAGAGCGTCCTGCAG
CGGCCCGCGGGCGCCAAGTACTTTTTCAAGTCTATGGATCAGGATTTGCGGGTGGTGAAGGAAGAAATTTTCAGAT
GACAACGCCCGCTCCCTGCTTCAACGGAAGGGTGGTATCCTGGCTGGTGTCTTCAGATAATCCCCAACCCGAG
ATGGCCCTCCAGTCCATGAGGCTCGGGCAGAACTGGCGCCTCCAGCCCCACCTTTACCTCCTTTGCCACCCGAG
AGGACCAGCGGCATTGGGGACTCAAGGCCTCCATCCTTCCACCCTAATGTGTCCAGCAGCCATGAGAATCTGGAG
CCTGAGACAGAAACCGAGTCAGTAGTGTCACTGAGGCGGGAGCGGCCTCGCAGGAGAGACAGCAGTGAGCATGGC
GCTGGGGGCCACAGGACTGGTGGCCCCCTCAAGGCTGGAGCGCCACCTGGCCGGATACGAGAGCTCCTCTACCTC
ATGACCAGCGAGCTGGAGAGTACCAGCCTGGGGGACTCGGACGAGGAGGACACCATGAGCAGGTTTCAGCAGCTCC
ACGGAGCAGAGCAGTGCCCTCCCGCTCCTTAAGCGCCACCGGCGGCGAAGGAAGCAGAGGCCACCCCGCCTGGAG
AGGACGTATCCTTCAGCAGCGTCACAGATTCACAATGTCTCTCAATATCATCACAGTCACGCTAAACATGGAG
AAGTACAACCTTCTGGGTATCTCCATTGTTGGCCAGAGCAATGAGCGGGGAGACGGAGGCATCTACATTGGCTCC
ATCATGAAGGGTGGGGCTGTGGCGGCCGACGGGCGCATTGAGCCAGGGGACATGCTTTTGCAGGTGAATGACATG
AACTTTGAGAACATGAGCAACGATGACGCTGTGCGGGTGCTGAGGGACATTGTGCACAAGCCTGGCCCCATTGTG
CTGACTGTGGCCAAGTGCTGGGATCCCTCTCCTCAGGCCTATTTCACTCTCCCCGAAATGAGCCCATCCAGCCA
ATTGACCCTGTGCTGGGTGGTCTCCATTCCGCGGCTCTGACTGGCACCTTCCAGCCTATCCAGGTTCTCTCTCC
ATGAGCACCATTACATCTGGATCGTCTTTGCCTGATGGCTGTGAAGGCCGGGGTCTCTCCGTCCATACGGACATG
GCATCGGTGACCAAGGCCATGGCAGCTCCAGAGTCTGACTGGAAGTCCGGGACCGCATGTGGCTCAAGATCACC
ATCCCTAATGCCTTTCTGGGCTCGGATGTGGTTGACTGGCTCTACCATCACGTGGAGGGCTTTCTTGAGCGGGCGG
GAGGCCCGCAAGTATGCCAGCGGGCTGCTCAAAGCAGGCCTGATCCGACACACCGTCAACAAGATCACCTTCTCT
GAGCAGTGCTATTACGTCTTCGGAGACCTCAGTGGTGGCTGTGAGAGCTACCTAGTCAACCTGTCTCTCAATGAC
AACGATGGCTCCAGTGGGGCTTCAGACCAGGATACCCTGGCTCCTCTGCCTGGGGCCACCCCTGGCCCCCTGCTG
CCCACTTTCTCTACCAGTACCCTGCCCCACACCCCTACAGCCCCGAGCCTCCACCCTACCATGAGCTTTTCATCT
TACACCTATGGTGGGGGCAGTGCCAGCAGCCAGCATAGTGAGGGCAGCCGGAGCAGTGGGTGACACGGAGTGAT
GGGGGGGCAGGGCGCACGGGGAGGCCCGAGGAGCGGGCCCCCGAGTCCAAGTCCGGCAGTGGCAGTGAGTCTGAG
CCCTCCAGCCGAGGGGGCAGCCTTCGGCGGGGTGGGGAAGCAAGTGGGACTAGCGATGGGGGCCCTCCTCCATCC
AGAGGCTCAACTGGGGGTGCCCCAATCTCCGAGCCCCACCCAGGGCTCCATCCCTATGGACCGCCCCCTGGCATG
GCCCTCCCCCTACAACCCCATGATGGTGGTCATGATGCCCCACCTCCACCTCCAGTCCCTCCAGCAGTGCAGCCT
CCGGGGGGCCCCCTCAGTCAGAGACCTGGGCTCTGTGCCCCAGAACTGACAGCCAGCCGCCAAAGCTTCCACATG
GCCATGGGCAATCCCAGCGAGTTCTTTGTGGATGTTATGTAGCCCACTGTGGGGCCAGGCTGGGCCGGGCGCTCC
TGGTGTGTGACTGGGTGTCTGGCCGTCATGTGCTTGCTCTTACAGTGCCTGGGCTCAGCCTACCAGCTGCTGCC
ATACAGGAGATTGTGGCCACTGTGACTCTCACCAGCAGTGCCTGGTTCCTCCCCCTTCCCTCAGGGGTAGACAAG
GGACCTTTGATTATTTTTAGCTTTGTTTTTTTATAAGCCTTTTTTGGGGGTTAAATAGAGTTTCTTACATTTTTG
GGACTTTTTTAATAGGCATTTCTCTTTT

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FIGURE 4672

AAAAAAAAAAGAGGGAGGTGGCGGCAGCGGCTAGCGGACTCGAGTCTCAACCGGGCTGAGGCGGACACTTCTG
TGGAGCGAAGCAGTGGGAGCATCGAGCACTAGAGGCGGCACCGGGATCCCCGGCTCCGGGGAGGGGGCGCCGGA
CCGGGAGGAGGGGAGGGGGCGATGCTGGAAGCCATGGCGGAGCCAGTCCCGAAGATCCACCTCCGACCCCTTAAG
CCAGAGACTCAGCCACCAGAGAAACGGCGGAGAACAATTGAGGATTTCAACAAATTCTGCAGTTTTGTTTTGGCA
TATGCTGGTTACATTCCCCCTAGCAAAGAGGAAAGTGACTGGCCAGCCTCTGGCTCCAGCTCTCCATTGCGAGGA
GAGAGTGGCGCCGACAGTGATGGCTGGGACTCGGCCCCCTCAGATCTTCGAACCATCCAGACTTTTGTTAAGAAA
GCAAAGTCATCCAAGAGAAGGGCAGCTCAAGCAGGTCCCACCCAGCCAGGACCCCCAAGGTCCACTTTCTCTCGT
CTGCAGGCCCCCGACAGTGCTACCTTGCTTGAGAAGATGAAGTCAAGGACTCTCTCTTTGATCTGGATGGGCCC
AAAGTGGCATCTCCTTTGTCCCCACATCCCTGACACATACCTCCCGGCCCCCTGCTGCTCTTACCCCCGTGCCC
CTTTCCAGGGGGACCTCTCCCATCTCTCTCGAAAGAAGGACCAGAAAGAACCGAAAGTTGGGGCCAGGAGCTGGG
GCTGGCTTTGGGGTGCTTCGGAGGCCTCGGCCAATCCTGGGGATGGGGAAAAGAGATCTCGAATCAAGAAGAGC
AAGAAGCGGAAGTTAAAAAAGGCAGAACGGGGGATAGACTCCCACCTCCTGGGCCTCCCCAGGCACCCCCAGTG
ATACAGACTCTGAAGAGGAGGAGGAAGAGGAGGAAGAGGAAGAAGAAGAGATGGCAACAGTGGTAGGGGTG
AAGCCCCAGTCCCTGTGCTGCCAACACCCCTGAGGCTCCTAGGCCCCCTGCCACAGTGCACCCTGAAGGAGTCC
CTCCTGCTGACAGTGAAAGCAAGGAGGTGGGCAGCACTGAAACAAGCCAAGATGGAGATGCCAGCTCCAGTGAAG
GCGAGATGCGGGTCATGGACGAGGACATCATGGTAGAATCAGGTGATGACTCATGGGATCTGATCACATGTTACT
GTCGAAAGCCCTTTGCAGGGCGGCCCATGATTGAGTGCAGCCTGTGTGGGACGTGGATCCACCTCTCCTGTGCTA
AGATTAAGAAGACCAACGTCCCCGACTTCTTTTATTGCCAGAAATGCAAGGAAGTGAAGGCCAGATGCCCGGCGGT
TAGGGGGGCCCCCAAATCTGGAGAGCCCTGATGGCACCAACTTTAGCCTGGAAGTTCCAAATGACAACATGATT
TGGGAAGTGAAGCTCAGGGTCCTCAGCCTATCCCTGGAGCTTGATACTGTCTGCACTTCAAGGCAGGAATTCT
CAAGGGAGACTTGTTTGAAAATGAGTGTCTCACTTTCCACCCATCCTTCCTCCCCACTCTGTGGACTTGAAAT
TGAATCCATTACGGTTGGGGATGGGAGGCTGTCTGTGTCCCGACACATAATCTCTGTCTCTTGGACCTGCCACCA
TCACTTTCTGGGTGAGGATTGGAATTGGGATGGAATGGGACAGTTGTCTATAAACTCTAGTGTAATATTAGCA
CTCCCCCCTCATCTTTTCTTCTATTTCACTCCCCATTTATTTCTTCTACACCGGTTGTATTTTAAATTTGG
ACTTCCCCATTATGGGCATGGCAGCTCAAAGGTGGAGTACTAGAGCCTGGCCAAGTGAGGAAGGAAAGCAGAAAGG
TGACGATTCTCACTCACCTCTTTTGTTTTTAATAATATCGGCCGCTGTTGTACAGACAGCCTGCGTGTTGTAA
TAAAGCAGGGTGGGCTCTTTAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 4673

MLEAMAEPSPEDPPP TLKPETQPPEKRRRTIEDFNKFCSFVLAYAGYIPPSKEESDWPASGSSSPLRGESAADSD
GWDSAPSDLRTIQTFVKKAKSSKRRAAQAGPTQPGPPRSTFSRLQAPDSATLLEKMKLKDSLFDLDGPKVASPLS
PTSLTHTSRPPAALTPVPLSQGDL SHPPRKKDRKNRKLGPAGAGFGVLRPRPTPGDGEKRSRIKKS KKRKLKK
AERGDRLPPP GPPQAPPVIQTLKRRRKRRKRKKKKRWQQW

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FIGURE 4674

GCTCCGCTGAATCCGCCCCGCGCGTCGCCGCCGTCGTCGCCGCCCCCGTCCCGGCCCCCCTGGGTTCCCTCAGCC
CAGCCCTGTCCAGCCCCGGTCCCCGGGAGGATGAAGTTCGTGTACAAAGAAGAGCATCCGTTGAGAAGCGCCGCT
CTGAGGGCGAGAAGATCCGAAAGAAATACCCGGACCGGGTGCCGGTGATAGTAGAAAAGGCTCCCAAAGCTCGGA
TAGGAGACCTGGACAAAAAGAAATACCTGGTGCCTTCTGATCTCACAGTTGGTCAGTTCTACTTCTTGATCCGGA
AGCGAATTCATCTCCGAGCTGAGGATGCCTTGTTTTCTTTGTCAACAATGTCATTCCACCCACCAGTGCCACAA
TGGGTCAGCTGTACCAGGAACACCATGAAGAAGACTTCTTTCTCTACATTGCCTACAGTGACGAAAGTGTCTACG
GTCTGTGAAGCTGCTGCCCTGAGCTGGAGGGGGGTCTCATTCTACAAAGAGAGAGGTGGCCCCCCTTTCTTGAC
CTCCTCCTCCTTCAAGCTCAAACACCACCTCCCTTATTAGGACCGGGCACTTCTTAATGTTTGTGGCTTTCTCTC
CAGCCTCTCTTAGGAGGGGTAAATGGTGGAGTTGGCATCTTGTAACCTCTCCTTTCTCCTTTCTTCCCTTTCTCTG
CCCGCCTTTCCCATCCTGCTGTAGACTTCTTGATTGTGTCAGTCTGTGTCACATCCAGTGATTGTTTTGGTTTCTGT
TCCCTTTCTGACTGCCCAAGGGGCTCAGAACCCAGCAATCCCTTCTCTTCACTACCTTCTTTTTTGGGGGTAGT
TGAAGGGACTGAAATTGTGGGGGAAGGTAGGAGGCACATCAATAAAGAGGAAACCACCAAGCTG

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FIGURE 4675

CCGGCGGCGCCTCAGGTCGCGGGGCGCCTAGGCCTGGGTTGTCTTTGCATCTGCACGTGTTTCGCAGTCGTTTCC
GCGATGCTGCCTCTGCTGCGCTGCGTGCCCCGTGTGCTGGGCTCCTCCGTCGCCGGCCTCCGCGCTGCCGCGCCC
GCCTCGCCTTTCCGGCAGCTCCTGCAGCCGGCACCCCGGCTGTGCACCCGGCCCTTCGGGCTGCTCAGCGTGCGC
GCAGGTTCCGAGCGGCGGCGGGGCTCCTGCGGCCTCGCGGACCCTGCGCCTGTGGCTGTGGCTGCGGCTCGCTG
CACACCGACGGAGACAAAGCTTTTGTGATTTCTGAGTGATGAAATTAAGGAGGAAAGAAAAATTCAGAAGCAT
AAAACCTCCCTAAGATGTCTGGAGGTTGGGAGCTGGAAGTGAATGGGACAGAAGCGAAATTAGTGCGGAAAGTT
GCCGGGGAAAAATCACGGTCACTTTCAACATTAACAACAGCATCCCACCAACATTTGATGGTGAGGAGGAACCC
TCGCAAGGGCAGAAGGTTGAAGAAGAGGAGCCTGAACTGACATCAACTCCCAATTTCTGTGGTTGAAGTTATAAG
AATGATGATGGCAAGAAGGCCCTTGTGTTGGACTGTCATTATCCAGAGGATGAGGTTGGACAAGAAGACGAGGCT
GAGAGTGACATCTTCTCTATCAGGGAAGTTAGCTTTTCACTCCACTGGCGAGTCTGAATGGAAGGATACTAATTAT
ACACTCAACACAGATTCCTTGGACTGGGCCTTATATGACCACCTAATGGATTTCTTGCCGACCGAGGGGTGGAC
AACACTTTTGCAGATGAGCTGGTGGAGCTCAGCACAGCCCTGGAGCACCAGGAGTACATTACTTTTCTTGAAGAC
CTCAAGAGTTTTGTCAAGAGCCAGTAGAGCAGACAGATGCTGAAAGCCATAGTTTCATGGCAGGCTTTGGCCAGT
GAACAAATCCTACTCTGAAGCTAGACATGTGCTTTGAAATGATTATCATCCTAATATCATGGGGGAAAAATACC
AAATTTAAATTATATGTTTTGTGTTCTCATTTATTATCATTTTTTTCTGTACAAATCTATTATTTCTAGATTTTT
GTATAACATGATAGACATAAAATTGGTTTATCTCCTCC

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FIGURE 4676

MLPLLRCVPRVLGSSVAGLRAAAPASPFQQLQPAPRLCTRPFGLLSVRAGSERRPGLLRPRGPCACGCGGSLH
TDGDKAFVDFLSDEIKEERKIQKHKTLPKMSGGWELELNGTEAKLVRKVAGEKITVTFNINNSIPPTFDGEEEPS
QGQKVVEEQEPELTSTPNFVVEVIKNDGKKALVLDCHYPEDEVGQEDAESESDIFSIREVSFQSTGESEWKDTNYT
LNTDSLWDWALYDHLMDFLADRGVDNTFADELVELSTALEHQEYITFLEDLKS FVKSQ

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FIGURE 4677

CCCGTTCCCTGGAGGCGCGCACAGACCCCTGGGAGGTGTACTTTCCGGGTGCAGACCGCGAATGGATCGCAGCGT
ATTCTGGGAAGTGTTGTTTTATCGACCGGCCCCACGTGGAGACAGATTTAGGCATCCAAGCGAAATGCGTGAGGC
CAGCCCGACCTGCACTGAGGGAGGTAAGTCTTGAGGGAAAGTTCTGGATGCCTGGGTTTACCCAGATGGAGGTGT
CCAATAGGCAATTAGATACACAAGTCTCAGGCTCTCCCCAGGTGCTAGATTTCCAGCAGCACCACCATTATGTTG
ACTTCTCGTCCCGCCCCCTTGGGCTTCAGAAATAATGGTGATTGGCTTTCCCTTGGTGACGCCCCCTGCTTGGTGG
GCTGGCCTCGCCTTCGCCCCCGACCTGGCACGAGCCTCTCGAGCTTCCGGGCCGTCTGCTCGGTGATTGGCCGA
AACAGTGAGTGGACGGCCGCGGATTGGCTGTGCTCAGCGGCGGGCTGAGCAACTGGAGTGAGGGGAGCAGTTGGG
CCAAGATGGCGGCCCGCCGAGGGACCGGTGGGCGACGGCGAGCTGTGGCAGACCTGGCTTCCTAACCACGTCGTGT
TCTTGCGGCTCCGGGAGGGACTGAAAAACCAGAGTCCAACCGAAGCTGAGAAACCAGCTTCTTCGTCGTTGCCTT
CGTCGCCCGCCCGCAGTTGCTGACGAGAAACGTGGTCTTTGGCCTCGGCGGAGAGCTTTTCTGTGGGACGGAG
AAGACAGCTCCTTCTTAGTCGTTGCCTTCGGGGCCCCAGCGGCGGCGGCGAAGAGCCCGCCCTGTCCCAGTACC
AGATGGAGTTTCGCTCTTGTGCCCAGGCTGGAGTGCAATGGCGCCATCTCGGCTCACCGCAACCTCCACCTTCC
AGTTTCAAGCGATTCTTCTGCCTCAGCCCCCCCCGCGAGTAGCTGGGATTACAGAGATTGCTTTGCATAAATCCA
CCCCTGTTTGAAATCTATCAAGTCTTGTTAAGCCCCAACACAACATCATGTAGCACTTATAGGAATAAAAGGACTT
ATGGTATTAGAATTACCTAAAAGATGGGGGAAGA

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FIGURE 4678

GAGCAGTTGGGCCAAGATGGCGGCCGCCGAGGGACCGGTGGGCGACGGCGAGCTGTGGCAGACCTGGCTTCCTAA
CCACGTCGTGTTCTTTCGGCTCCGGGAGGGAGTGA AAAACCAGAGTCCAACCGAAGCTGAGAAACCAGCTTCTTC
GTCGTTGCCTTCGTGCGCCGCCGCCGAGTTGCTGACGAGAAACGTGGTCTTTGGCCTCGGCGGAGAGCTTTTCCT
GTGGGACGGAGAAGACAGCTCCTTCTTAGTCGTTTCGCCTTCGGGGCCCCAGCGGCGGCGGCGAAGAGCCCGCCCT
GTCCAGTACCAGAGATTGCTTTGCATAAAATCCACCCCTGTTTGAAATCTATCAAGTCTTGTTAAGCCCAACACA
ACATCATGTAGCACTTATAGGAATAAAAGGACTTATGGTATTAGAATTACCTAAAAGATGGGGGAAGAATTCTGA
ATTTGAAGGTGGA AAATCAACAGTGAATTGTAGTACCCTCCAGTTGCGGAGAGATTTTTACCAGTTCCACCTC
TCTGACTCTAAAGCATGCTGCATGGTATCCAAGTGAAATCCTGGATCCCCACGTAGTGCTGTTAACATCAGACAA
CGTAATCAGAAATTTACTCACTACGTGAGCCGAGACACCCACTAACGTGATAATACTTTTCAGAAAGCCGAAGAGGA
AAGTCTAGTACTCAATAAAGGAAGGGCGTATACCGCATCTCTAGGAGAGACAGCAGTTGCATTTGACTTTGGGCC
ATTGGCAGCAGTCCCAAAGACTCTATTTGGACAAAACGGCAAAGATGAAGTAGTGGCATAACCCACTGTACATCTT
ATATGAAAATGGAGAGACTTTCTTGACATACATCAGTCTGTTACACAGCCCTGGAAATATTGGAAAGCTGTTGGG
TCCATTGCCCATGCATCCTGCGGCTGAAGATAACTATGGTTATGATGCGTGTGCTGTACTCTGCTTACCCTGTGT
CCCCAATATCTTAGTGATCGCTACTGAATCAGGAATGCTGTATCACTGTGTCGTGCTAGAAGGGGAAGAAGA
TGACCACACGTCAGAAAAGTCTGGGATTCCAGGATTGACCTCATTCCTTCTGTATGTGTTTGAATGTGTTGA
GTTGGAGCTTGCTTTGAACTGGCATCTGGAGAGGATGACCCCTTTTGATTCTGACTTTTCTTGTCCAGTCAA
TCATAGAGATCCCAAGTGCTTCAAGATATCACTGTACTCATGAAGCTGGTGTACATAGTGTGGGCTAACTTG
GATTCATAAACTTCACAAATTTCTTGGATCAGATGAAGAAGATAAGGATAGTTTACAGGAACCTCTCTACAGAACA
GAAATGCTTTGTTGAACACATCCTTTGTACGAAGCCATTGCCCTGCAGGCAGCCAGCTCCAATTCGAGGATTTTG
GATTGTACCTGACATTCCTGGGACCCACGATGATCTGCATCACCAGTACCTATGAATGCCTCATATGGCCGTTATT
AAGTACAGTCCATCCAGCGTCTCCTCCCTGCTTTGTACTCGAGAAGATGTTGAAGTGGCAGAGTCTCCCTCCG
TGTTCTGGCTGAAACCCAGATTCTTTGAAAAGCATATTAGAAGCATTTTGCAACGTAGTGTGCAATCCAGC
ATTTTGTAAAGCTTCTGAAAAGGACATAGCCCTCCTCCTGAAGAATGCCTTCAGCTCCTCAGCAGAGCCACCCA
GGTGTTCAGAGAGCAGTACATTCTCAAACAGGACTTGGCAAAGGAGGAGATTACGCGGAGGGTCAAATTATTATG
TGACCAAAAAAAGAAACA ACTAGAAGATCTCAGTTATTGTGAGAAGAGAGGAAAAGTCTGCGGGAAATGGCTGA
GCGTTTAGCTGACAAATATGAGGAAGCTAAAGAAAAACAAGAGGATATCATGAACAGGATGAAAAAACTACTTCA
CAGTTTTCACTCTGAGCTCCAGTTCTCTCTGATAGTGAGCGAGACATGAAGAAAGAATTACAGCTGATACCTGA
TCAACTTCGACATTTGGGCAATGCCATCAAACAGGTTACTATGAAAAAGGATTATCAACAGCAAAAGATGGAGAA
GGTGTGTAGTCTTCCAAAACCCACCATTATTCTCAGTGCCTACCAGCGAAAGTGCAATTCAGTCCATCCTGAAAGA
GGAGGGTGAACATATAAGGGAAATGGTGAAGCAAATCAATGATATCCGCAATCATGTAACTTCTGACACCACCA
GGAGCTGACTCACACCTGAACTGAACACCATTGAAGGCTTAAACCCATATTGTAAACAGGTTAGATTATCTAAT
TTATAAAAAGGTGTTTTGATG

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FIGURE 4679

MAAAEGPVGDELWQTLPNHVVFRLRLREGLKNQSPTEAEKPASSSLPSSPPPQLLTRNVVFGLGGEFLWDGED
SSFLVVRLRGP SGGGEEPALSQYQRLLCINPPLFEIYQVLLSPTQHHVALIGIKGLMVLELPKRWGKNSEFEGGK
STVNCSTTPVAERFFTSSTSLTLKHAAYPSEILDPHVVLLTSDNVIRIYSLREPQTPTNVII LSEAAAAESLVLN
KGRAYTASLGETAVAFDFGPLAAVPKTLFGQNGKDEVVAYPLYIYENGETFLTYISLLHSPGNIGKLLGPLPMH
PAAEDNYGYDACAVLCLPCVPNILVIATESGMLYHCVVLEGEEDDHTSEKSWDSRIDLIPSLYVFECVELELAL
KLASGEDDPFDSDFSCPVKLHRDPKCP SRYHCTHEAGVHSVGLTWIHKLHKFLGSDEEDKDSLQELSTEQKCFVE
HILCTKPLPCRQPAPIRGFWIVPDILGPTMICITSTYECLIWPLLSTVHPASPPLLCTREDVEVAESPLRVLAET
PDSFEKHRSILQRSVANPAFLKASEKDIAPPPEECLQLLSRATQVFREQYILKQDLAKEEIQRRVKLLCDQKKK
QLEDLSYCREERKSLREMAERLADKYEEAKEKQEDIMNRMKKLLHSFHSSELPVLSDSERDMKKELQLIPDQLRHL
GNAIKQVTMKKDYQQQKMEKVLSPKPTIILSAYQRKCIQSILKEEGEHIREMVKQINDIRNHVNF

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FIGURE 4680A

GGTCAGCGGAGGGTTTGCTCCGTCTCTTGGTGAACCTTGAACAGAGGCAGAGGCAAAAGCAAAACATTTCTGCGCC
AGGAGATGAGGGGCGGTAGAGCXCTTGGXAATGGAGATGTCCTTGACGCCTGGGCAGAGGCTGCAGCTGCAGGAC
CCTGTGGCCACTGGAGATAAGTAATGGTGCCXATTTGAACACCTACTGGAACGGGGCAGGAACAGTGAGTGACC
CCAGGCGAGCACAGGCAGGTGCCAGGAGCCAGGATGCAAGGATGACGCCTCCGGAGGCCCTGGCCTCACTCCCAC
CTGGGCGCTAGGAGCCATCCCAGGGCTCCAGCCAGGAGCCCTGCTGCCAGGGGCAXTGGCCAAACCTTTCTTCC
GACTCCAGAAGTTTCTCCGCCGAACACAGTTCTGCTGTTXCTTCCCTCAXCGGCTGCCTACCTGATGACCGGCAG
CCTGCTGCTGCTGCAGCGGGTCCGCGTXGGCTCTCCACAGGGCCCCCGGGCACCCGGCCCCCTGCAGACCTTGC
CAGTGGCCGCCGTGGCGCTGGGCGTGGGCTTGTGACAGCAGAGCCCTGCACGACCCTCGAGTCAGCCAGAGC
TGCTGCTGGGTGTGGACATGCTGCAGAGCCCCCTGACCCGGCXCCCGGCCCGGCCCGCTGGCTCCGGAGCCGC
AACTCGGAGCTGCGTCAGTTGCGTCGCCGCTGGTTCCACCATTTCATGAGTGACTCCAGGGACCGCCCGCCCTG
GGCCCCGAGGCTGCCAGGCCCGCCATCCACAGCCGAGGCACCTACATTGGATGCTTCAGTGACGATGGCCACGAG
AGGACTCTGAAAGGAGCTGTGTTTTATGACTTGAGAAAGATGACTGTCTCCCACTGCCAGGATGCGTGTGCTGAG
CGGTCTATGTCTACGCCGGCTTGGAGGCCGGGGCGGAGTGTTACTGCGGGAACCGGCTGCCAGCGGTGAGCGTG
GGGCTGGAAGAGTGTAACCATGAGTGCAAAGGCGAGAAGGGCTCTGTGTGCGGGGCTGTGGACCGGCTCTCCGTG
TACCGTGTGGACGAGCTGCAGCCGGGCTCCAGGAAGCGGCGGACCGCCACCTACCGCGGATGCTTCCGACTGCCA
GAGAACATCACACATGCCTTCCCCAGCTCCCTGATACAGGCCAATGTGACCGTGGGGACTTGCTCGGGCTTTTGT
TCCAGAAAGAGTTCCCCTTGGCCATTCTCAGGGGCTGGGAATGCTACTGTGCTTACCCTACCCCCGGTTCAAC
CTGCGGGATGCCATGGACAGCTCAGTATGTGGCCAGGACCCTGAGGCACAGAGGCTGGCAGAATACTGTGAGGTC
TACCAGACACCTGTGCAAGACACTCGTTGTACAGACAGGAGGTTCTTGCCTAACAAATCCAAAGTGTTTGTGGCT
TTGTCAAGCTTCCCAGGAGCCGGGAACACATGGGCACGGCACCTCATTGAGCATGCCACTGGCTTCTATACAGGG
AGCTACTACTTTGATGGAACCCCTCTACAACAAAGGGTTCAAGGGCGAAAAGGACCCTGCGGAGCCAGCGACC
ATCTGTGTCAAAACCCACGAGAGTGGCAGGAGGGAGATTGAGATGTTTGATTACGCCATCTGTCTAATCCGGAAC
CCATACAGGTCCCTGGTGGCAGAATTCAACAGAAAATGTGCCGGGCACCTGGGATATGCAGCTGACCGCAACTGG
AAGAGCAAAGAGTGGCCGGACTTTGTCAACAGCTACGCCCTCGTGGTGGTCTCGCACGTCTGGACTGGCTCAAG
TACGGGAAGCGGCTGCTGGTGGTGCCTACGAGGAGCTGCGGCGCAGCCTGGTGCCACGTTACGGGAGATGGTG
GCCTTCTCAAGCTGTCTGTGAGCGAGGAGCGGCTGCTCTGCGTGGAGAACAACAAGGAGGGCAGCTTCCGGCGG
CGCGGCCGGCGCTCCCACGACCCTGAGCCCTTACCCCGGAGATGAAAGACTTGATCAATGGCTACATCCGGACG
GTGGACCAAGCCCTGCGTGACCACAACCTGGACGGGGCTGCCCAGGGAGTATGTGCCAGATGATAGGCCTGGCCC
ACGCCGCCGCCCGCTGAGTGACGCAATCGCACACCGGGGCTGCGCTCCCCACTCTGATGCTCAGGCCCGTGGC
CTCACTGGGACGAACGGTGGGTGGGGGGCTCACCTGGTGTGCTTCCGCAACAAGGAGACCTGGACACAACAGA
CACACATCACAAAGCGAACACAAATGGACACACATACCTGGCCACGAACCCACACCTCCTCAGACACTCAGACAC
CACTCCAGGCTCATAGCCCCGTCTTGATGCAGAGAAGCCACCCACGTGGGGTGTGCCAGGCACCCCAAGATACAA
ATGCAGCCACGCACAGACGTAACACACAGGTGCCAGGCGGTGTGCTCCTGGAGGCTGGCTGGCTGTCTCTCAC
ACAGATACAGTGCCTCCCTGGGATCCGGGAGGCCCTGGGCTTCTGTGTGTAGCCCTGGCATAGACTTGCTCG
TCAGGGTGTTCGACTCTGGGATGCTGGGCCGGGCAGACATTTATGCTCTGAGCAGCAAGGACCATTGGGATGGAG
GTGGGCACAAAGACTGTGCTTCCAGGGTGTGCGGCCCTGGCCGTGTGTCTGACATCCATAAATGTGTGTGTGG
TGTGACTACGGGCACCAACAACTCCGCAGCCTTGCTCTCTTTCTCTGTGGCTGGGCTGGCTGCACCATGGGCA
GGGTTGAGGACTGCCCCCACCCTGCCCAAGCCAATGCAGACACTGACCTCAAGACCAGCCACACCAAGTCTGTG
CACTGCCACACACCCCTTCAACCCCTCTACACCATGCTCCGGGGCTGGGGCTCCTTGCTGGCTTCTTCTCT
CCAGCTATCTCAGGGAAGCTGGAGATTCAAGTCATGCCCCAGAAGCAAGGTGTAAGCATGGGGCGTGGGGAAG
AGGGCAGGAGCTGAAGTTCCAGGGGAGCCCAGGACCCTGGGGACCTGTACACTAGCAGGATGGGTCTTGGGAGT
TGGCATGGGGAGATTGTAAGGGCTGTATCTCCGCGATTACTGGTACTGGTGTCTCCACCCATAGGGGCCCTGTCT
CTCTGGGGTCCCACACTGGGGTCATGAGAGCTAGTTAGTACTCAGCCTGACCCCTAGGTCTGGTCTGCCAGCCT
GGGATGGGGGTCAATGTATGCTACACATCTTGGGCTCACAAGTGAGGCTGTGGAGGCCAGGAGGTTCAAGTATGG
AGGGTAGGAGTGCAACCCAGGAGCAACGCTCAAGGTGGCCGAGATGCAGGGAGGATTGTGGCGATCCGGTTGCAC
ACTGGCCTCTGTGGAGGTGAGGAGGTGGGAAGGTGGGTGGGCCTGAACCTCAGGCAGCCCTTCAAGTGGCTTCTTC
AGGCCTAGGATAACCTGGCCAGGCCCATGGTCTGCTCTGGGTGAGCTGTGAGGGAGACCTCCCTTACGCCTG
AGCCAAGCTGCATTGGGAGGAGAAGGCAGGGTGAGGGATCTGGGAGAGCAGGACGTTGAGATATCCTGACCCCTCT

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FIGURE 4680B

GCTTCCTAGCCTGATGATGGGGAACCCAGAGCCACCCGCTATGAGCACAGGCCGGGGGTGGAAGGCCCAGTAGAG
CTGCCCTTCCCCAGATGGAAGCTTCCTCCAACCTTCAGTTTGGCCAGTGGGTGGGTTTGGGCATCTGTGCCCTG
GTGGCCTCCAAATCCTTCCTGGGATTCCCCCAAACCCACACTGATGCGAAGCTGTTCTTGACCCTCCCATAGCAT
CAACTCAGTTTCAGCTCAAAGCTAGAAAACACCAAGGTCTTTGAAAATGTTTATTGGCTCAGGATAGCTTCGGCATC
CAATCTGCGAAGGCCCTGATGGAGCTATTTCTTCCTAGTATCAGGAGCAATTGAGACCCCTCAGGAGTTTCCAC
ACTGCTGTGGACGGGATAGCCAGGGCAGACCTGCATCCCAGAGCAAGCCTAGATCCTTGAAAGCAATGTCAGGCG
TGGCAGTGGGGAAGCCATGGAGGCTGGGAAGGGCAAAGTGTGGAGAGAGGAGTGACCGGGACTGGAGCCAGGGTC
TGGGGAGAGCAACAGCACCAAGGCTTTTCCTGGTAGTTGGATTGGTACATTCACTGCTGCCAGGTACCCAGAGATG
TCATCTCTCTCCAGGTAGAGCATCACCAGCTCCTGTGGCCTTGTAGATGACTCTGTACCTCAGTGAAGAGTGCAG
GCAAGTAGAGTGATGGGGTCAGTGTCCATCCAGTTTACGCTGAGTCAGTCCATACAGCAAGACACCTGGCACTTG
GCAGGTACTCCTGGATGTTGATGAGCAAGGAAGAGCAACGGCCCTGTCAGCTGGCAGTGGTCTCACAGCCTTCA
TCCCAGGTCTGCCTACGTGGGAGATCTCATCAGAAACAGGAACGGGGATCTGTCTGTGCTTGCAGGAAAGTCCAT
TTGTTTTTCTCCAAGTTAGGTCTCATCTACAGCTCTTAGCTTCTCAGTAAAGAGGATACTCTCCCAACCAGCCAA
GGAATAAAAGCTGATCTGTATGTAGGGCAGAAGTGTGGCAAATGCATCAGGAACCGGTTAGAACAGAACAGAGAA
ACCCTGACTGTCTACAGATTCCAACTTTAATAGCAAGCCTGTGGAGTTACACAAACCTGTGTTAAACATGTAAT
TTTTATGGATTTTCATCTCCCGTTGTGGATCAATTTGGAAAAACCAAATATGTAATTTTAAAAAACTAAACACA
TCCTGGTAGTCCCAGTGATGTGTAAATGAGAGAGAAGAATAGACAGGCTTCCAAACCCCTGGGAAGAAAGCTGCTT
AATTATGTGAACATCTTATAATGAAGTCTCTTGCAGCTAAAATTAGATTTTGAGTGCATGAATCTGTGATAATGT
TTGCATATCAGAATGCATTCTCCCTTAAAAGTAGCAGTAGCCACTTGGTTCTTAGGGGGCCCCAAGAGGAGAGG
AGAAGTGCTGAGGTTGATGTTACGACTGCAAGAATTCTTGGGACACAGGTTTGTCTTCTGCTGACTTGCTCGGAA
ACCCATTGGAGGTATCTGAAATGTGATGACTCCAAAGGGGTTCAATTCCTACTATAGGGAGAAATTGATTCTGCTGA
CTTCCTATTTATCACCCTCAATATTGGGTGAGTTGGTCTGAACAAGGTGGGGATAAAGTAGAGTGGAAATAATG
TAGAGTCGTCAGACTGAAAGGCCAGGTTGTAGTCCCAGCTCTTATCTGCCATCTTGGACAAAGCTTTTCCCATCT
CCAGTCTCAGTTTCCCATCCATAAAATGGGGGAAGTGGTAGGTCTTGCTGATTGCATCCACATTCAATTCCTCCAT
TTCCTTTCCAGCAACCCCCCATTTCTGTTTGGGAATTCATATGATCTGCCAGAGCCTCTCCAGGGGTGGAATAC
ATGTCTTGACTAAGCCAATGACACCTTCCATCTTCCAGCTATGGTGAAGTGGGTAGGTTAGGTATGATCTTGTGAGTT
AAGACAATGAAGCCAGAGGGAATTTCAAGACTTATGGGAATGCTGGGTAGAAGCTGTTTTAATTCCTGTTGAA
TGTGAAAAAGGTAGTAGTATTCTGGGTCTTTATGATGACCACCTTGGGCCTTGGGATCATGACCAGGAATCAG
TGAAGCTGACACCCTGAAGGGAGAGTTGAGAGGCAGAAAGAGATCAAGTCCTTGGTGAAATTGTTTAAAGTACAG
GATCAAGCCTTGCTTGAGATTGGCCTTACCTCTGGACTTTTTTTGTTATATGAGCTAATAAATCTGTTTATTGT
TT

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FIGURE 4681

MAKPFFRLQKFLRRTQFLLFFLTAAYLMTGSLLLLQVRVALPQGPRAPGFLQTLPVAAVALGVGLLDSRALHDP
RVSPDLLLGVDMLQSPLTRPRPGPRWLRSRNSLRQLRRRWFHHFMSDSQGPPALGPEAARPAIHSRGTYIGCFS
DDGHERTLKGAVFYDLRKMTVSHCQDACAERSYVYAGLEAGAECYCGNRLPAVSVGLEECNHECKGEKGSVCGAV
DRLSVYRVDELQPGSRKRRTATYRGCFRLPENITHAFPSSLIQANVTVGTCSGFCSQKEFPLAILRGWECYCAYP
TPRFNLRDAMDSSVCGQDPEAQLAEYCEVYQTPVQDTRCTDRRFLPNKSKVFVALSSFPAGNTWARHLIEHAT
GFYTGSYYFDGTLYNKGFKGEKDHWSRRTICVKTHESGRREIEMFDSAILLIRNPYRSIVAEFNRKCAGHLGYA
ADRNWKSKEWPDFVNSYASWWSSHVLDWLKYGKRLLVVHYEELRRSLVPTLREMVAFNLNVSVEERLLCVENNKE
GSFRRRGRRSHDPEPFTPEMKDLINGYIRTVDQALRDHNWTGLPREYVPR

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FIGURE 4682

CTTAGTGGTGTCTCGGGGTCTAGTGGACAGAGAAGACTCTTGGCCAGGCAGATGGCTTCTCGGTGGCAGAACATGGG
GACCTCCGTGCGCCGGAGATCTCTCCAGCACCAGGAGCAGCTGGAGGACAGCAAGGAGCTGCAGCCTGTGGTCAG
CCATCAGGAGACCTCTGTAGGGGGCCCTGGGGTCCCTGTGCAGACAGTTCCAAAGGAGGCTGCCCCTGAGAACCGT
CAACCTCAACCTCCGCGCAGGGGCCCTCCTGGAAACGCCTGGAAACCCAGAGCCAGGTACAGCAGGGCCTCCAGGC
TGCAGCTCGCTCAGCTAAGAGTGCTTTGGGTGCCGTGTCCCAGAGAATCCAGGAGTCCTGCCAAAGTGGCACCAA
GTGGCTGGTGGAGACCCAGGTGAAGGCCAGGAGGCGGAAGAGAGGAGCACAGAAGGGCAGTGGATCCCCAACTCA
CAGCCTGAGCCAGAAAGAGCACCCGGCTGTCTGGAGCCGCCCTGCCCCACTCAGCCGCAGACCCCTGGGAGAAGGA
GCATCACCGCCTCTCTGTCCGGATGGGCTCACATGCCCCACCCATTACGGCGATCAAGGCGGGAGGCTGCCTTCCG
GAGCCCCTACTCCTCAACAGAGCCCCCTCTGCTCTCCCAGCGAGTCTGACAGTGACCTAGAGCCTGTGGGGGCGGG
AATTCAGCATCTCCAGAAGCTGTCCAAGAGCTAGATGAAGCCATTATGGCGGAAGAGAGTGGTGACATCGTCTC
TCTCATTGACTGAGGAAGTGCCCTGCAGGAAACAAGCCCTGTCTGACCGCCAAGGCTTCATACTCAAGGATGT
CTATGCTTCCCCGTGTGCTTCCTGGAAAAAACCCCGGGAGTCGTAGTACCCCTGGGCCACTGCTAACAAGCAC
CTAACAAGGGGGCCAGAGCCCCCTGCTCCAGCCACATCTGGACCCATCAGTGACTGCCTGCCATAGCCTGAGAGT
GTCTTGGGGAGACCTTGCAGAGGGGGGAGAATTGTTCTTCTGCTTTTCTAGGGGACTCTTGAGCTTAGAACTCA
TCGTACACTTGACCTTGAGCCTTCTATTTGCCTCATCTATAACATGAAGTGCTAGCATCAGATATTTGAGAGCTC
TTAGCTCTGTACCCGGGTGCCTGGTTTTTGGGGAGTCATCCGCAGAGTCACTACCCACTGTGTTTCTGGTGCCA
AGGCTCTTGAGGGCCCCACTCTCATCCCTCCTTTCCCTACCAGGGACTCGGAGGAAGGCATAGGAGATATTTCCA
GGCTTACGACCCTGGGCTCACGGGTACCTATTTATATGCTCAGTGCAGAGCACTGTGGATGTGCCAGGAGGGGTA
GCCCTGTTCAAGAGCAATTTCTGCCCTTTGTAAATTATTTAAGAAACCTGCTTTGTCAATTTATTAGAAAGAAAC
CAGCATGTGACTTTCCTAGATAACACTGCTTCTCATAATAAGACTATTTGCATTTG

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FIGURE 4683

MASRWQNMGTSVRRRSLQHQEQLSDSKELQPVVSHQETSVGALGSLCRQFQRRRLPLRTVNLNLRAGPSWKRLETP
EPGQQGLQAAAARSAKSALGAVSQRIQESCQSGTKWL VETQVKARRRKRGAKGSGSPTHSLSQKSTRLSGAAPAH
SAADPWEKEHHRLSVRMGSHAHPLRRSRREAAFRSPYSSTEPLCSPSESDSDLEPVGAGIQHLQKLSQELDEAIM
AEESGDIVSLIHD

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FIGURE 4684

ATGGATGCCGCTCTGCTCCTGAACGTGGAAGGGGTCAAGAAAACCATTTCTGCACGGGGGCACGGGCGAGCTCCCA
AACTTCATCACCGGATCCCGAGTGATCTTTCAATTTCCGCACCATGAAATGTGATGAGGAGCGGACAGTCATTGAC
GACAGTCGGCAGGTGGGCCAGCCATGCACATCATCATCGGAAACATGTTCAAGCTCGAGGTCTGGGAGATCCTG
CTTACCTCCATGCGGGTGCACGAGGTGGCCGAGTTCTGGTGCGACACCATCCACACGGGGGTCTACCCCATCCTA
TCCCGGAGCCTGAGGCAGATGGCCAGGGCAAGGACCCACAGAGTGGCACGTGCACACGTGCGGGCTGGCCAAC
ATGTTGCGCTACCACACGCTGGGCTACGAGGACCTGGACGAGCTGCAGAAGGAGCCTCAGCCTCTGGTCTTTGTG
ATCGAGCTGCTGCAGGTTGATGCCCCGAGTGATTACCAGAGGGAGACCTGGAACCTGAGCAATCATGAGAAGATG
AAGGCGGTGCCCCGTCTCCACGGAGAGGGAAAATCGGCTCTTCAAGCTGGGCCGCTACGAGGAGGCCTCTTCCAAG
TACCAGGAGGCCATCATCTGCCTAAGGAACCTGCAGACCAAGGAGAAGCCATGGGAGGTGCAGTGGCTGAAGCTG
GAGAAGATGATCAATACTCTGATCCTCAACTACTGCCAGTGCTGCTGAAGAAGGAGGAGTACTATGAGGTGCTG
GAGCACACCAGTGATATTCTCCGGCACCAACCCAGGCATCGTGAAGGCCTACTACGTGCGTGCCCGGGCTCACGCA
GAGGTGTGGAATGAGGCCGAGGCCAAGGCGGACCTCCAGAAAGTGCTGGAGCTGGAGCCGTCCATGCAGAAGGCG
GTGCGCAGGGAGCTGAGGCTGCTGGAGAACCGCATGGCGGAGAAGCAGGAGGAGGAGCGGCTGCGCTGCCGGAAC
ATGCTGAGCCAGGGTGCCACGCAGCCTCCCGCAGAGCCACCCACAGAGCCACCCGCACAGTCATCCACAGAGCCA
CCTGCAGAGCCACCCACAGCACCATCTGCAGAGCTGTCCGCAGGGCCCCCTGCAGAGCCAGCCACAGAGCCACCC
CCGTCCCCAGGGCACTCGCTGCAGCAGTGAGCCCCCTGAGGCCACAGCCACCCAGGCAGGGAGCAAGTGGCCTG
GTCACCTCTGGTTCGATTGACCAGGATCGTGGTGTCACTTTTTAAATTTAAATTAATTTTGAATCAAAGTC
AGACACACCCATGGTAAAAAAAAAAAAAAAAACAATCCCAAGGGTACAGAAGAGCTTATGAATAAAAGTAGTTTT
CTCCTCTACCCCTCTCATTCTTCCGTGCCATGGTTTTAATTGACCCTGTTTTTAATTTCTTGGTAGTTTTCTC
TATTTCCAAGTAATCTGTTTAAATCAGTTTCTAGATTTTACCCCATGTCAATGACAAATGAGGATTTGATGCTCT
GATCCTTTCTCATGCCTGATACCCCTCCCTGTCTCCCATTTTGGATAGTTACATTTGGGGGTCTCTCGGTGAT
TTTTGTAACTTTACGCAGGACACTTAGAGCTCTCTAGAAATCCCACTGACTTTAGTGGGTCTTGATGTAGGGTGGG
CAAGCCCCGACACTGGAGCTTAGCCTGAGAGGGTTCTTG

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FIGURE 4685

MDAALLLNVEGVKKTILHGGTGELPNFITGSRVIFHFRTMKCDEERTVIDDSRQVGQPMHIIIGNMFKLEVWEIL
LTSMRVHEVAEFWCDTIHTGVYPILSRSLRQMAQKDPTEWHVHTCGLANMFAYHTLGYEDLDELQKEPQPLVFV
IELLQVDAPSDYQRETWNLSNHEKMKAVPVLHGEGNRLFKLGRYEEASSKYQEAIICLRNLQTKPKPWEVQWLKL
EKMINTLILNYCQCLLKKEEYEVLEHTSDILRHHPGIVKAYYVRARAHAEVWNEAEAKADLQKVLELEPSMQKA
VRRELRLLENRMAEKQEEERLRCRNMLSQGATQPPAEPPTEPPAQSSTEPPAEPPPTAPSAELSAGPPAEPPATEPP
PSPGHSLOH

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FIGURE 4686

GGCCAGCGCGGCCGGXGCCCCCTXCGXCCTXCCCACCCAGGGCGCTGAGCACGCACGXCCGCCGGCCTGGTGTTT
CGGXCGGGGGCCCCGGGACCAGCCGCCGCTTCTCCAGGCGCTCCTACTCTCTGGGCATCTGCAGTCCGAGCGGAA
GGGGCGGGGAAXCGTCGGCGACGCCGAGGGAGCAAAGCCCACGATCGGGCTTCCCGGGGCAGCGGACGGCTGCCTTC
CTCCCGGCGCAAACGCACCGCCCAGGAGGGGGCGGGCTCGGGCGGGTCGGGGGGCGGGGCCGGGGTCCGAGCTCGG
GCCCXGCCCTCCGCCCTCCGCCAGCTCCTGTGAGCTGCCGAGTGCTAGGCACCCGGGCTCTTCTGGGGGCTCCAGAA
CTAAGCCACCCAGACACCATCATCCCGAAAAACCCAGCCCTTCTCCCATGGCAGGCTACTTGCCCCCCCCAAAGGX
TACGCCCCCTTCGCCCCCACCTCCCTACCCTGTACCCCTGGGTACCCGGAGCCGGCGCTACATCCTGGGXCCCCG
GCAGGCGCCAGTGCCCCGCCAGGTACCTGCCCCAGXCTCCCGGCTTCGCCCTCTTCCCTCGCCTGGCCCCGTGG
CCTTGGGGTCTGCTGCCCCCTTCTTGCCACTGCCAGGGGTGCCTTCTGGCCTCGAATTCTGGTGCAGATTGATC
AGATTTTGATTACCCAGAAGGCTGAGCGAGTGGAAGTACAGGCTCCACCAGGCACCACCATTGGCCAC
GTGCTACAGACCTGGCATCCCTTCCCTCCCAAGTTCTCCATCCAGGATGCCGATCGCCAGACAGTCTTGCGAGTG
GTGGGGCCCTGCTGGACCTGTGGCTGTGGCACAGACACCAACTTTGAGGTGAAGACXTCGGGATGAATCCCGCAG
TGTGGGCCGCATCAGCAAGCAGTGGGGGGCCCTGGTCCGAGAAGCCCTCACAGATGCAGATGACTTTGGCCTACA
GTTCCCGCTGGACCXXTGGAIXGXXXTGXAGGGTGAAGGCTGTGCTGCTGGGAGCCACATTCTCATTGACTA
CATGTTCTTTGAGAAGCGAGGAGGCGCTGGGCCCTCTGCCATCACCAGTTAGAGGCCACCATGGTGTGAGGAGAC
CATCACCTCGACCAGAACTCCAGATGGTCACCTGCCCTGGCCCCCTCTCTGGGCAGCCCCCTTCTCTCCATGTACA
CTGCAGGGGACAGXAAGGGGGGCCCCATCCCTACCCTACTCCCTGGCCGCTGXCCCCCTGTGGTTCCCAAGGAGG
GGTATGTATGAGAGCCGCTCTCCTGTACCTXCCCACCACTGTCCCAGCAGTCCCTCGGCACACAGGCATATCAG
CTTTCACACTTTCCCCATGCACTCTCTCCACCCCTTCCAGGGCCTCTGCTCCAAAGGAGGCCTCTGGAACCCA
GGACTCTGGGGTTTTACAAGXAGGGCTGGGGTGTGGAAGGGCAAGCTGCACCAAAGACGGTGGATATAGCCACCG
CCCCCGCCGCTGCCTAGCATCTGCTTGGCCAATTAGTTTACGCTCAGACCATGGCACTTTGAGGGGGTCTCTA
CCTCCCCATCAACAGCTGCAGGGGGACCCAGTGCCAACCTCCTCTCCAXCTAGGGCCCTGCCTTCAGCTGGTG
CTTGCTGCGATTCTGTGCCTTATGTAAGTGCCTTCCCTTCCCTTGCCCTXAGGAAAAAGGCTGCATCTTTATAT
GTTACATTCATATAAACTTTGTAACTTTTTGACATTG

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FIGURE 4687

CTAGTTTCTAAGGATCATGTCTGCGAGCCAGGATTCCCGATCCAGAGACAATGGCCCCGATGGGATGGAGCCCCGA
AGGCGTCATCGAGAGTAACTGGAATGAGATTGTTGACAGCTTTGATGACATGAACCTCTCGGAGTCCCTTCTCCG
TGGCATCTACGCCTATGGTTTTGAGAAGCCCTCTGCCATCCAGCAGCGAGCCATTCTACCTTGTATCAAGGGTTA
TGATGTGATTGCTCAAGCCCAATCTGGGACTGGGAAAACGGCCACATTTGCCATATCGATTCTGCAGCAGATTGA
ATTAGATCTAAAAGCCACCCAGGCCTTGGTCCTAGCACCCACTCGAGAATTGGCTCAGCAGATACAGAAGGTGGT
CATGGCACTAGGAGACTACATGGGCGCCTCCTGTACGCCTGTATCGGGGGCACCAACGTGCGTGCTGAGGTGCA
GAAACTGCAGATGGAAGCTCCCCACATCATCGTGGGTACCCCTGGCCGTGTGTTTGATATGCTTAACCGGAGATA
CCTGTCCCCCAAATACATCAAGATGTTTGTACTGGATGAAGCTGACGAAATGTTAAGCCGTGGATTCAAGGACCA
GATCTATGACATATTCCAAAAGCTCAACAGCAACACCCAGGTAGTTTTGCTGTGAGCCACAATGCCTTCTGATGT
GCTTGAGGTGACCAAGAAGTTCATGAGGGACCCCATTCGGATTCTTGTCAAGAAGGAAGAGTTGACCCTGGAGGG
TATCCGCCAGTTCTACATCAACGTGGAACGAGAGGAGTGGAAGCTGGACACACTATGTGACTTGTATGAAACCCT
GACCATCACCCAGGCAGTCATCTTCATCAACACCCGGAGGAAGGTGGACTGGCTCACCAGAGAAGATGCATGCTCG
AGATTTCACTGTATCCGCCATGCATGGAGATATGGACAAAAGGAACGAGACGTGATTATGAGGGAGTTTCGTTT
TGGCTCTAGCAGAGTTTTGATTACCACTGACCTGCTGGCCAGAGGCATTGATGTGCAGCAGGTTTCTTTAGTCAT
CAACTATGACCTTCCCACCAACAGGGAAAACCTATATCCACAGAATCGGTGAGGTGGACGGTTTGGCCGTAAAGG
TGTGGCTATTAACATGGTGACAGAAGAAGACAAGAGGACTCTTCGAGACATTGAGACCTTCTACAACACCTCCAT
TGAGGAAATGCCCCCTCAATGTTGCTGACCTCATCTGAGGGGGCTGTCCTGCCACCCAGCCCCAGCCAGGGCTCAAT
CTCTGGGGGCTGAGGAGCAGCAGGAGGGGGGAGGGGAAGGGAGCCAAGGGATGGACATCTTGTCAATTTTTTTTCTT
TGAATAAATGTCACTTTTTGAGGCAAAAGAAGG

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FIGURE 4688

MSASQDSRSRDNGPDGMEPEGVIESNWNIEIVDSFDDMNLSSESLLRGIYAYGF EKPSAIQQRAILPCIKGYDVIAQ
AQSGTGKTATFAISILQQIELDLKATQALVLAPTRELAQQIQKVVMA LGDYM GASCHACIGGTNVRAEVQKLQME
APHIIVGTPGRVFDMLNRRYLSPKYIKMFVLDEADEMLSRGFKDQIYDIFQKLNSNTQVVLLSATMPSDVLEVTK
KFM RDP I R I L V K K E E L T L E G I R Q F Y I N V E R E E W K L D T L C D L Y E T L T I T Q A V I F I N T R R K V D W L T E K M H A R D F T V S
A M H G D M D Q K E R D V I M R E F R S G S S R V L I T T D L L A R G I D V Q Q V S L V I N Y D L P T N R E N Y I H R I G R G G R F G R K G V A I N M
V T E E D K R T L R D I E T F Y N T S I E E M P L N V A D L I

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FIGURE 4689

GAGCTAGCTTTGCAATATGGCGGCCGAGGCGGACGGACCGCTTAAACGGCTGCTCGTGCCGATTCTTTTACCTGA
GAAATGCTACGACCAACTTTTCGTTTCAGTGGGACTTGCTTCACGTCCCCTGCCTCAAGATTCTCCTCAGCAAAGG
CCTGGGGCTGGGCATTGTGGCTGGCTCACTTCTAGTAAAGCTGCCCCAGGTGTTTAAATCCGGGGAGCCAAGAG
TGCTGAAGGGTTGAGTCTCCAGTCTGTAATGCTGGAGCTAGTGGCATTGACTGGGACCATGGTCTACAGCATCAC
TAACAACCTCCCATTCAGCTCTTGGGGTGAAGCCTTATTCTGATGCTCCAGACGATCACCATCTGCTTCCTGGT
CATGCACTACAGAGGACAGACTGTGAAAGGTGTCGCTTTCCTCGCTTGCTACGGCCTGGTCCTGCTGGTGCTTCT
CTCACCTCTGACGCCCTTGACTGTAGTCACCCCTGCTCCAGGCCTCCAATGTGCCTGCTGTGGTGGTGGGGAGGCT
TCTCCAGGCAGCCACCAACTACCACAACGGGTACACAGGCCAGCTCTCAGCCATCACAGTCTTCCTGCTGTTTGG
GGGCTCCCTGGCCCGAATCTTCACTTCCATTTCAGGAAACCGGAGATCCCCTGATGGCTGGGACCTTTGTGGTCTC
CTCTCTCTGCAACGGCCTCATCGCCGCCAGCTGCTCTTCTACTGGAATGCAAAGCCTCCCCACAAGCAGAAAA
GGCGCAGTAGAGCCAGCTACTGGAGTCATTCCGTTTCCACTCATTACCCAACTCAGGGTTCTCCCCATCTGAG
CCAGCCTGCTGGTGTGACTTACTCATCCTCCATTCTCTGCACTTGACAGCTTTCTGAGCCAGGGTTTTCTTTTA
GTGGAACAAATGGTTGATGGATCCAGATCCTTAGAAAAGGAGAGGATGGGGGTAGAGTCTCCCAAGCCAAAATT
TTGACATTTGAGTGCTTTCGTAAGCCCTGTACATGTACTATTAATTTCAGTCATTTCAGCCAAGCCTCCTCCTCTAG
CAGCAATTTCCAGCTGTTTAACACTATCCTGGGCAAATGTTTTACCCTGTCCTCCAGCCTCCCTGCTTCCCTTCT
GGCCTGGAAGACTGAGTCTGGACGGCAGAGTGGAGGGACTGGGAGGCTGTGGCTGCCTCCCTCCCTCAGCCCGG
CTGGGACTGTCTCCCGACCCAGTGCTGGGGTGGGGGAAGGGGACGGAGAATGACTCAGGCAGGGCCCCAGGG
TGGGGTGAGGAGGTTCTGCTCTGGCAGGTCTAGGCGGAAGGGAGTGGAGATGGGGCTGGTTGCTGCTGCAGTGA
GGGGAACAGATGGGACAATAAAGACTGGAGACTCAGTTGAATAATGCAAAAAAAAAAAAAA

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FIGURE 4690

MAEADGPLKRLLPILLPEKCYDQLFVQWDLHVPCLKILLSKGLGLGIVAGSLLVKLPQVFKIRGAKSAEGLS
LQSVMLELVALTGTMVYSITNNFPFSSWGEALFLMLQTITICFLVMHYRGQTVKGVAFLACYGLVLLVLLSPLTP
LTVVTLLQASNVPVVVGRLLQAATNYHNGYTGQLSAITVFLLFGGSLARIFTTSIQETGDPLMAGTFVVSSLCNG
LIAAQLLFYWNAPPHKQKKAQ

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FIGURE 4691

TTAAGGAGGTGCAGTCTTATGGGAGGGACAGGGGCGGAGTCAGTCTTTAAAAGCTGTTCCCAGGTCTGGCCCGCC
TGCCACAAACGCTGAGCCCAGGTGGGAGAGGTCTGGCCTATCCGCGCCTGGCAGCTGTCGGAACCTCCGGAGACCA
CAAAGGGGTTTATGGTTTACCCCTCCACGGAAGGTCGGTCTGATCGCAGCTGCGGGTCGGGAGAGGGACCGG
GGTCCCCAGTCAGTAGGCCTCAGAACACCTCTTCAGTGCCGGGGCACCAGACAGCGGATTTTGCATTTCGACTCT
CCCCAAAGTGTGCCGAACAGGTTGGAAGCAAAGGCTCCGGTTTAAAGCTCTGGGCTTGGGGATAAAATACACTTTT
TAAGGACCCAAGTTCCTCGGCAACGACTCCAGACTGGGAAGACCTTTCCATTTTCAGGATCGACGCTTCACGTTG
AGGGGAGGGCATTTCAGGACGCCCTCTTAAGGCTTCTCCCAACCCATGGCGCTACCAGGCTCCTCACAGGACCAGG
CCTGGAGCCTGGAGCCTCCGGCTGCCACGGCTGCTGCCTCCTCATCTTCGGGACCCCAGGAGCGGGAGGGCGCTG
GGAGCCCCGCGGCCCCCGGGACGCTGCCCCCTGGAGAAGGTGAAGCGGCCGATGAACGCGTTTCATGGTGTGGAGCT
CCGCTCAGCGCCGCCAGATGGCGCAGCAGAACCCCAAGATGCACAACTCCGAGATCTCCAAGCGCCTGGGCGCGC
AGTGAAGCTGCTGGACGAGGACGAGAAGCGGCCCTTCGTGGAGGAGGCCAAGCGGCTCCGCGCCCCGACACCTGC
GCGACTACCCGACTACAAGTACCGGCCTCGGCGCAAGGCCAAGAGCTCGGGCGCCGGACCTTCCCGCTGCGGAC
AGGGAAGAGGCAACCTGGCCAGCGGCGGCCCGCTCTGGGGGCGGGGTACGCGACCACCCAACCGAGCAGAGGCT
TTGGGTACAGACCCCCAGCTACTCGACAGCCTACCTGCCTGGCAGCTATGGCTCTTCCCACTGCAAACCTGGAAG
CCCCCTACCGTGCTCCCTCCCTCAGAGTGACCCTAGGCTCCAGGGGGAAGTGTGCCACCTATACCCACTACC
TGCCCCCTGGCTCTCCCACTCCATACAACCTCCCCCTTGCTGGTGCCCCCATGCCCTAACCACCTCTAAACCT
CATGGACGCAGACCTCACGGGACGGGCCTCATCCTCCTTTTTTAATCCAGCAGCATCCCCTACCCAGGCTGTCA
ACCTTTCTCCTGTTGGACTACAGTTCAGAGGCAGCCTGCAGTCTCCCATGATAGCCAGGGAGAGCCGCACAAC
ATACAATTATATTTTTGGTAGTATTAAACAGTTTTGTATTATTC

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FIGURE 4692

MALPGSSQDQAWSLEPPAATAAASSSSGPQEREGAGSPAAPGTLPLEKVKRPMNAFMVWSSAQRROMAQQNPKMH
NSEISKRLGAQWKLLDEDEKRPFVVEEAKRLRARHLRDYPDYKYRPRRKAKSSGAGPSRCGQGGRGNLASGGPLWGP
GYATTQPSRGFGYRPPSYSTAYLPGSYGSSHCKLEAPSPCSLPQSDPRLQGELLPTYTHYLPPGSPTPYNPPLAG
APMPLTHL

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FIGURE 4693

ACTTGTCATGGCGACTGTCCAGCTTTGTGCCAGGAGCCTCGCAGGGGTTGATGGGATTGGGGTTTTCCCCTCCCA
TGTGCTCAAGACTGGCGCTAAAAGTTTTGAGCTTCTCAAAAGTCTAGAGCCACCGTCCAGGGAGCAGGTAGCTGC
TGGGCTCCGGGGACACTTTGCGTTCGGGCTGGGAGCGTGCTTTCCACGACGGTGACACGCTTCCCTGGATTGGCA
GCCAGACTGCCTTCCGGGTCACTGCCATGGAGGAGCCGCAGTCAGATCCTAGCGTCGAGCCCCCTCTGAGTCAGG
AAACATTTTCAGACCTATGGAACTACTTCTGAAAACAACGTTTCTGTCCCCCTTGCCGTCCCAAGCAATGGATG
ATTTGATGCTGTCCCCGGACGATATTGAACAATGGTTCACTGAAGACCCAGGTCCAGATGAAGCTCCCAGAATGC
CAGAGGCTGCTCCCCGCGTGGCCCCCTGCACCAGCAGCTCCTACACCGGCGGCCCTGCACCAGCCCCCTCCTGGC
CCCTGTCACTTCTGTCCCTTCCCAGAAAACCTACCAGGGCAGCTACGGTTTCCGTCTGGGCTTCTTGCATTCTG
GGACAGCCAAGTCTGTGACTTGCACGTACTCCCCTGCCCTCAACAAGATGTTTTGCCAACTGGCCAAGACCTGCC
CTGTGCAGCTGTGGGTTGATTCCACACCCCCGCGCGCACCCGCGTCCGCGCCATGGCCATCTACAAGCAGTCAC
AGCACATGACGGAGGTTGTGAGGCGCTGCCCCACCATGAGCGCTGCTCAGATAGCGATGGTCTGGCCCCCTCCTC
AGCATCTTATCCGAGTGAAGGAAATTTGCGTGTGGAGTATTTGGATGACAGAAACACTTTTCGACATAGTGTGG
TGGTGCCCTATGAGCCGCTGAGGTTGGCTCTGACTGTACCACCATCCACTACAACATACATGTGTAACAGTTTCT
GCATGGGCGGCATGAACCGGAGGCCCATCCTCACCATCATCACTGGAAGACTCCAGTGGTAATCTACTGGGAC
GGAACAGCTTTGAGGTGCGTGTGTGTGCTGTCTGGGAGAGACCGGCGCACAGAGGAAGAGAATCTCCGCAAGA
AAGGGGAGCCTCACCACGAGCTGCCCCAGGGAGCACTAAGCGAGCACTGCCCAACAACACCAGCTCCTCTCCCC
AGCCAAAGAAGAAACCACTGGATGGAGAATATTTCACCTTCAGATCCGTGGGCGTGAGCGCTTCGAGATGTTCC
GAGAGCTGAATGAGGCCCTTGAACTCAAGGATGCCAGGCTGGGAAGGAGCCAGGGGGGAGCAGGGCTCACTCCA
GCCACCTGAAGTCCAAAAAGGGTCAGTCTACCTCCCGCCATAAAAAACTCATGTTCAAGACAGAAGGGCCTGACT
CAGACTGACATTCTCCACTTCTTGTTCCTCCCACTGACAGCCTCCCAACCCCATCTCTCCCTCCCCTGCCATTTTGG
GTTTTGGGTCTTTGAACCTTGCTTGCAATAGGTGTGCGTCAGAAGCACCCAGGACTTCCATTTGCTTTGTCCCG
GGGCTCCACTGAACAAGTTGGCCTGCACTGGTGTGTGTGTGGGAGGAGGATGGGGAGTAGGACATACCAGCT
TAGATTTTAAGGTTTTTACTGTGAGGGATGTTTGGGAGATGTAAGAAATGTTCTTGCAAGTTAAGGGTTAGTTTAC
AATCAGCCACATTCTAGGTAGGGGCCCACTTCACCGTACTAACCAGGGAAGCTGTCCCTCACTGTTGAATTTTCT
CTAACTTCAAGGCCCATATCTGTGAAATGCTGGCATTTGACCTACCTCACAGAGTGCATTGTGAGGGTTAATGA
AATAATGTACATCTGGCCTTGAAACCACTTTTTATTACATGGGGTCTAGAACTTGACCCCTTGAGGGTGCTTGT
TCCCTCTCCCTGTTGGTTCGGTGGGTTGGTAGTTTCTACAGTTGGGCAGCTGGTTAGGTAGAGGGAGTTGTCAAGT
CTCTGCTGGCCAGCCAAACCTGTCTGACAACCTCTTGGTGAACCTTAGTACCTAAAAGGAAATCTCACCCCAT
CCCACACCCTGGAGGATTTTCACTCTTGTATATGATGATCTGGATCCACCAAGACTTGTTTTATGCTCAGGGTCA
ATTTCTTTTTTCTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTCTTTTTCTTTGAGACTGGGTCTCGCTTTGTTGCCAGGCTGGAGT
GGAGTGGCGTGATCTTGGCTTACTGCAGCCTTTGCCTCCCGGCTCGAGCAGTCCTGCCTCAGCCTCCGGAGTAG
CTGGGACCACAGGTTATGCCACCATGGCCAGCCAACCTTTTGCATGTTTTGTAGAGATGGGGTCTCACAGTGTTG
CCCAGGCTGGTCTCAAACCTCTGGGCTCAGGCGATCCACCTGTCTCAGCCTCCAGAGTGCTGGGATTACAATTG
TGAGCCACCACGTCCAGCTGGAAGGGTCAACATCTTTTACATTCTGCAAGCACATCTGCATTTTACCCCAACCT
TCCCTCCTTCTCCCTTTTTATATCCCATTTTTATATCGATCTCTTATTTTACAATAAACTTTGCTGCCA

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FIGURE 4694

AGTGCTTTCAAAAAGAATTGGCGTCCGCTGTTCGCCTCTCCTCCCGGGAGTCTTCTGCCTACTCCCAGAAGAGGAG
GGAAGCACAXGGXTXGGGTTTTCTTTAGCTCTGCGTCCGGATCCCTGAGAACTTCGXAXAGXCCATCCTGGCTGAGG
CTAATCTCCGCTGTGCTTCCCTCTGCAGTATGAAGACTTTGGAGACTCAACCGTTAGCTCCGGACTGCTGTCTTTC
AGACCAGGACCCAGCTCCAGCCCATCCTTCTCCCCACGCTTCCCCGATGAATAAAAAATGCGGACTCTGAACTGAT
GCCACCGCTCCCCGAAAGGGGGGATCCGCCCCGGTTGTCCCCAGATCCTGTGGCTGGCTCAGCTGTGTCCCAGGA
GCTACGGGAGGGGGACCCAGTTTCTCTCTCCACTCCCCTGGAAACAGAGTTTGGTTCCCCCTAGTGAGTTGAGTCC
TCGAATCGAGGAGCAAGAAGTTTCTGAAAAATACAAGCCTTCTGAGAAAGCAACCGGGAGCCTTTCTGAAGA
AGAAGCGAACGGGCCAGAGTTGGGGTCTGGAAAAGCCATGGAAGATACCTCTGGGGAACCCGCTGCAGAGGACGA
GGGAGACACCGCTTGGAACCTACAGCTTCTCCAGCTGCCTCGATTTCTCAGTGGTTTCTGGTCAGAGTTCAGCAC
CCAACCTGAGAACTTCTTGAAAGGCTGTAAGTGGGCTCCTGACGGTTCTTGACATCTTGACCAATAGTGCTGATAA
CATCTTGCGAATTTATAACCTGCCCCAGAGCTGTACCATGAGGGGGAGCAGGTGGAATATGCAGAAATGGTCCC
TGTCTTTCGAATGGTGGAAAGGTGATACCATCTATGATTACTGCTGGTATTCTCTGATGTCTCTCAGCCCAGCCAGA
CACCTCCTACGTGGCCAGCAGCAGCCGGGAGAACCCGATTTCATATCTGGGACGCATTCACTGGAGAGCTCCGGGC
TTCCTTTCGCGCCTACAACCACCTGGATGAGCTGACGGCAGCCCATTCGCTCTGCTTCTCCCCGGATGGCTCCCA
GCTCTTCTGTGGCTTCAACCGGACTGTGCGTGTTTTTTCCACGGCCCCGGCTGGCCGAGACTGCGAGGTCCGAGC
CACATTTGCAAAAAAGCAGGGCCAGAGCGGCATCATCTCCTGCATAGCCTTCAGCCCAGCCCAGCCCCCTCTATGC
CTGTGGCTCCTACGGCCGCTCCCTGGGTCTGTATGCCTGGGATGATGGCTCCCCTCTCGCCTTGCTGGGAGGGCA
CCAAGGGGGCATCACCCACCTCTGCTTTCATCCCGATGGCAACCGCTTCTTCTCAGGAGCCCGCAAGGATGCTGA
GCTCCTGTGCTGGGATCTCCGGCAGTCTGGTTACCCACTGTGGTCCCCTGGGTGAGAGGTGACCACCAATCAGCG
CATCTACTTCGATCTGGACCCGACCGGGCAGTTCCTAGTGAGTGGCAGCACGAGCGGGGGCTGTCTCTGTGTGGGA
CACGGACGGGCTTGCAATGATGGGAAGCCGGAGCCCGTGTGAGTTTTCTGCCCCAGAAGGACTGCACCAATGG
CGTGAGCCTGCACCCTAGCCTGCCTCTCCTGGCCACTGCCTCCGGTCAGCGTGTGTTTCTGAGCCCACAGAGAG
TGGGGACGAAGGAGAGGAGCTGGGCCTTCCCTTGCTCTCCACGCGCCACGTCCACCTTGAATGTGGCTTCAGCT
CTGGTGGTGTGGGGGGGCGCCAGACTCCAGCATCCCTGATGATCACCAGGGCGAGAAAGGGCAGGGAGGAACGGA
GGGAGGTGTGGGTGAGCTGATATAAAAAGGTTTTTATGAT

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FIGURE 4695

ACTTGTCATGGCGACTGTCCAGCTTTGTGCCAGGAGCCTCGCAGGGGTTGATGGGATTGGGGTTTTCCCTCCCA
TGTGCTCAAGACTGGCGCTAAAAGTTTTGAGCTTCTCAAAAGTCTAGAGCCACCGTCCAGGGAGCAGGTAGCTGC
TGGGCTCCGGGGACACTTTGCGTTCGGGCTGGGAGCGTGCTTTCCACGACGGTGACACGCTTCCCTGGATTGGCA
GCCAGACTGCCTTCCGGGTCACTGCCATGGAGGAGCCGCAGTCAGATCCTAGCGTCGAGCCCCCTCTGAGTCAGG
AAACATTTTCAGACCTATGGAACTACTTCTTGAAAACAACGTTCTGTCCCCCTTGCCGTCCCAAGCAATGGATG
ATTTGATGCTGTCCCCGGACGATATTGAACAATGGTTCACTGAAGACCCAGGTCCAGATGAAGCTCCCAAGATGC
CAGAGGCTGCTCCCCCGTGGCCCCTGCACCAGCAGCTCCTACACCGGCGGGCCCCCTGCACCAGCCCCCTCCTGGC
CCCTGTCATCTTCTGTCCCCTTCCAGAAAACTACCAGGGCAGCTACGGTTTTCCGTCTGGGCTTCTTGCAATTCTG
GGACAGCCAAGTCTGTGACTTGCACGTACTCCCCTGCCCTCAACAAGATGTTTTGCCAACTGGCCAAGACCTGCC
CTGTGCACTGTGGGTTGATTCCACACCCCCGCCCCGACCCGCGTCCGCGCCATGGCCATCTACAAGCAGTCAC
AGCACATGACGGAGGTTGTGAGGCGCTGCCCCACCATGAGCGCTGCTCAGATAGCGATGGTCTGGCCCCCTCCTC
AGCATCTTATCCGAGTGGAAAGGAAATTTGCGTGTGGAGTATTTGGATGACAGAAACACTTTTCGACATAGTGTGG
TGGTGCCCTATGAGCCGCCCTGAGGTTGGCTCTGACTGTACCACCATCCACTACAACATACATGTGTAACAGTTCTT
GCATGGGCGGCATGAACCGGAGGCCCATCCTCACCATCATCACTGGAAGACTCCAGTGGTAATCTACTGGGAC
GGAACAGCTTTGAGGTGCGTGTTTGTGCTGTCTCTGGGAGAGACCGGCGCACAGAGGAAGAGAATCTCCGCAAGA
AAGGGGAGCCTCACCACGAGCTGCCCCAGGGAGCACTAAGCGAGCACTGCCCAACAACACCAGCTCCTCTCCCC
AGCCAAAGAAGAAACCCTGGATGGAGAATATTTACCCCTTCAGATCCGTGGGCGTGAGCGCTTCGAGATGTTCC
GAGAGCTGAATGAGGCCCTTGGAACTCAAGGATGCCCAGGCTGGGAAGGAGCCAGGGGGGAGCAGGGCTCACTCCA
GCCACCTGAAGTCCAAAAAGGTCAGTCTACCTCCCGCCATAAAAACTCATGTTCAAGACAGAAGGGCCTGACT
CAGACTGACATTCTCCACTTCTTGTTCCTCACTGACAGCCTCCCACCCCCATCTCTCCCTCCCTGCCATTTTGG
GTTTTGGGTCTTTGAACCTTGCTTGCAATAGGTGTGCGTCAGAAGCACCAGGACTTCCATTTGCTTTGTCCCG
GGGCTCCACTGAACAAGTTGGCTGCACTGGTGTTTTGTGTGGGAGGAGGATGGGGAGTAGGACATACCAGCT
TAGATTTTAAGGTTTTTACTGTGAGGGATGTTTGGGAGATGTAAGAAATGTTCTTGCACTTAAGGGTTAGTTTAC
AATCAGCCACATTCTAGGTAGGGGCCACTTCACCGTACTAACCAGGGAAGCTGTCCCTCACTGTTGAATTTTCT
CTAATTCAAGGCCCATATCTGTGAAATGCTGGCATTTCACCTACCTCACAGAGTGCATTGTGAGGGTTAATGA
AATAATGTACATCTGGCCTTGAAACCACCTTTTATTACATGGGGTCTAGAACTTGACCCCTTGAGGGTGCTTGT
TCCCTCCTCTGTTGGTTCGGTGGTGGTAGTTTCTACAGTTGGGCAGCTGGTTAGGTAGAGGGAGTTGTCAAGT
CTCTGCTGGCCCAGCCAAACCTGTCTGACAACCTCTTGGTGAACCTTAGTACCTAAAAGGAAATCTCACCCCAT
CCCACACCTGGAGGATTTTCTCTTGTATATGATGATCTGGATCCACCAAGACTTGTTTTATGCTCAGGGTCA
ATTTCTTTTTCTTTTTTTTTTTTTTTTTTTTTCTTTTTCTTTGAGACTGGGTCTCGCTTTGTTGCCAGGCTGGAGT
GGAGTGGCGTGATCTTGGCTTACTGCAGCCTTTGCCTCCCCGGCTCGAGCAGTCTGCCTCAGCCTCCGGAGTAG
CTGGGACCACAGGTTTCATGCCACCATGGCCAGCCAACCTTTTGATGTTTTGTAGAGATGGGGTCTCACAGTGTG
CCCAGGCTGGTCTCAAACCTCTGGGCTCAGGCGATCCACCTGTCTCAGCCTCCAGAGTGCTGGGATTACAATTG
TGAGCCACCACGTCCAGCTGGAAGGGTCAACATCTTTTACATTCTGCAAGCACATCTGCATTTTACCCCAACCT
TCCCCCTCTCTCCCTTTTTATATCCCATTTTTATATCGATCTCTTATTTTACAATAAACTTTGCTGCCA

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FIGURE 4696

GCCGCTGAGAAAGCGCAGAGAAGGCGGGCCCCGTCTGAGGTCTGGCAGTCAGAGACAGCCGGGCGCCACGGCCC
GAGCGCCACGGCAGCACCATGCCCCGACTCCTGGAGCGCCCCAAGCTTTCCAACGCCATGGCCAGGGCGCTGCA
CCGGCACATTATGATGGAGCGGGAGCGCAAGCGGCAGGAGGAAGAAGAGGTGGATAAGATGATGGAACAGAAGAT
GAAGGAAGAACAGGAGAGAAGGAAGAAAAAGGAGATGGAAGAGAGAATGTCATTAGAGGAGACCAAGGAACAAAT
TCTGAAGTTGGAGGAGAAGCTTTTGGCTCTACAGGAAGAGAAGCACCAGCTTTTCCTGCAGCTCAAGAAAGTTTT
ACATGAGGAAGAAAAACGGAGGCGAAAGGAACAGAGTGACCTGACCACCCTAACATCAGCTGCATACCAGCAGAG
CCTGACTGTTTACACAGGAACTCATCTCCTCAGCATGCAGGGGAGCCCTGGAGGACACAATCGCCCAGGCACCCT
CATGGCAGCTGACAGAGCCAAACAAATGTTTGGACCCCAAGTGCTTACGACCCGGCACTACGTGGGCTCAGCAGC
TGCTTTTGCAGGGACACCAGAGCATGGACAATTCCAAGGCAGTCCTGGTGGTGCCTATGGGACTGCTCAGCCCCC
ACCTCACTATGGGCCCCACACAGCCAGCTTATAGTCCTAGTCAGCAGCTCAGAGCTCCTTCGGCATTCCCTGCAGT
GCAGTACCTATCTCAGCCACAGCCACAGCCCTATGCTGTGCATGGCCACTTTCAGCCCACTCAGACAGGTTTCCT
CCAGCCTGGTGGTGCCCTGTCCTTGCAAAAGCAGATGGAACATGCTAACCAGCAGACTGGCTTCTCCGACTCATC
CTCTCTGCGCCCCATGCACCCCCAGGCTCTGCATCCAGCCCCTGGACTCCTTGCTTCCCCCAGCTCCCTGTGCA
GATGCAGCCAGCAGGAAAGTCGGGCTTTGCAGCTACCAGCCAACCTGGCCCTCGGCTCCCCTTCATCCAACACAG
CCAGAACCCGCGATTCTACCACAAGTGACCATCAGATTATATCTTCAACACCACACCCCCACCCCATCGTGGGT
GAGGGTATCCCCTGTGTGTCCCAGGCCAATAAAATCTACCTGCCA

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FIGURE 4698

MADDLDFETGDAGASATFFPMQCSALRKNGFVVLKGRPCKIVEMSTSKTGKHGHAKVHLVGIDIFTGKKYEDICPS
THNMDVPNIKRNDQFLIGIQDGYLSLLQDSGEVREDLRLPEGDLGKEIEQKYDCGEEILITVLSAMTEEA A VAIK
AMAK

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FIGURE 4699

GGCCGGGAGAGTAGCAGTGCCCTTGGACCCCAAGCTCTCCTCCCCCTTTCTCTCTAAGGATGGCCCAAGGAGAAG
TCCTACCCCTGGCCCTACGGCCGACAGACGGCTCCATCTGGCCTGAGCACCTGCCCCAGCGAGTCCTCCGGAAA
GAGCCTGTCACCCCATCTGCACTTGTCTCATGAGCCGCTCCAATGTCCAGCCCACAGCTGCCCCTGGCCAGAAG
GTGATGGAGAATAGCAGTGGGACACCCGACATCTTAACGCGGCACTTCACAATTGATGACTTTGAGATTGGGCGT
CCTCTGGGCAAAGGCAAGTTTGGAAACGTGTACTTGGCTCGGGAGAAGAAAAGCCATTTTCATCGTGGCGCTCAAG
GTCCTCTTCAAGTCCCAGATAGAGAAGGAGGGCGTGGAGCATCAGCTGCGCAGAGAGATCGAAATCCAGGCCCCAC
CTGCACCATCCCAACATCCTGCGTCTCTACAACATTTTTATGACCGGAGGAGGATCTACTTGATTCTAGAGTAT
GCCCCCGCGGGGAGCTCTACAAGGAGCTGCAGAAGAGCTGCACATTTGACGAGCAGCGAACAGCCACGATCATG
GAGGAGTTGGCAGATGCTCTAATGTACTGCCATGGGAAGAAGGTGATTACAGAGACATAAAGCCAGAAAATCTG
CTCTTAGGGCTCAAGGGAGAGCTGAAGATTGCTGACTTCGGCTGGTCTGTGCATGCGCCCTCCCTGAGGAGGAAG
ACAATGTGTGGCACCCCTGGACTACCTGCCCCCAGAGATGATTGAGGGGCGCATGCACAATGAGAAGGTGGATCTG
TGGTGCAATTGGAGTGCTTTGCTATGAGCTGCTGGTGGGGAACCCACCCTTTGAGAGTGATCACACAACGAGACC
TATCGCCGCATCGTCAAGGTGGACCTAAAGTTCCCCGCTTCTGTGCCCACGGGAGCCCAGGACCTCATCTCCAAA
CTGCTCAGGCATAACCCCTCGGAACGGCTGCCCCCTGGCCCAGGTCTCAGCCCACCCTTGGGTCCGGGCCAACTCT
CGGAGGGTGCTGCCTCCCTCTGCCCTTCAATCTGTGCGCTGATGGTCCCTGTTCATTCACTCGGGTGCGTGTGTTT
GTATGTCTGTGTATGTATAGGGGAAAGAAGGGATCCCTAACTGTTCCCTTATCTGTTTTCTACCTCCTCCTTTGT
TTAATAAAGGCTGAAGCTTTTTGT

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FIGURE 4700

MAQKENSYPWPYGRQTAPSGLSTLPQRVLRKEPVTPSALVLMRSRNVQPTAAPGQKVMENSSGTPDILTRHFTID
DFEIGRPLGKGKFGNVYLAREKKSHFIVALKVLFKSQIEKEGVEHQLRREIEIQAHLHHPNILRLYNYFYDRRRI
YLILEYAPRGELYKELQKSCTFDEQRTATIMEELADALMYCHGKKVIHRDIKPENLLLGLKGELKIADFGWSVHA
PSLRKTMCGTLDYLPPEMIEGRMHNEKVLDWCIGVLCYELLVGNPPFESASHNETYRRIVKVDLKFPASVPTGA
QDLISKLLRHNP SERLP LAQVSAHPWVRANSRRVLPPSALQSV

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FIGURE 4701

AGATGGAAGTACAGGCTCCACCAGGCACCACCATTGGCCACGTGCTACAGACCTGGCATCCCTTCCTCCCCAAGT
TCTCCATCCAGGATGCCGATCGCCAGACAGTCTTGCGAGTGGTGGGGCCCTGCTGGACCTGTGGCTGTGGCACAG
ACACCAACTTTGAGGTGAAGACTCGGGATGAATCCCGCAGTGTGGGCCGCATCAGCAAGCAGTGGGGGGGCTGG
TCCGAGAAGCCCTCACAGATGCAGATGACTTTGGCCTACAGTTCCTGCTGGACCTGGATGTGAGGGTGAAGGCTG
TGCTGCTGGGAGCCACATTCTCATTGACTACATGTTCTTTGAGAAGCGAGGAGGCGCTGGGCCCTCTGCCGTCA
CCAGTTAGAGGCCACCATTGGTGTGAGGAGACCATCACCTCGACCAGAACTCCAGATGGTCACCTGCCCTGGCCCC
TCCTCTGGGCAGCCCCCTTTCTCCATGTACACTGCAGGGGACAGAAGGGGGGCCCATCCCTACCCTACTCCCTG
GCCGCTGCCCTGTGGTTCCCAAGGAGGGGTATGTATGAGAGCCGCTCTCCTGCTACCTCCCACCACTGTCCCA
GCAGTCCCTCGGCACACAGGCATATCAGCTTTCACACTTTCCTCATGCACTCTCTCCACCCCTTCCAGGGCCT
CTGCTCCAAAGGAGGCCTCTGGAACCCAGGACTCTGGGGTTTTACAAGAGGGCTGGGGTGTGGAAGGGCAAGCTG
CACCAAAGACGGTGGATATAGCCACCGCCCCCGCCGCTGCCTAGCATCTGCTTGGCCAATTAGTTCAGCCTCA
GACCATGGCACITTTGAGGGGTCTCTACCTCCCCATCAACAGCTGCAGGGGGACCCAGTGCCAACCTTCCTCTCC
CACTAGGGCCCTGCCCTTCAGCTGGTGTGCTGCGATTCTGTGCCTTATGTAAGTGGCCCTTCCTTCCTTGCCC
TAGGAAAAAGGCTGCATCTTTATATGTTACATTCATATAAACTTTGTAACTTTTTG

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FIGURE 4702

MEVQAPP GTTIGHVLQ TWH PFLPKFS IQDADRQT VLRVVGPCWTCGCGTDTNFEVKTRDESRSVGRISKQWGGLV
REALTDADDFGLQFPLDLDVRVKAVLLGATFLIDYMF FEKRGGAGPSAVTS

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FIGURE 4703

GCTCCGCTGAATCCGCCCGCGCGTCGCCGCCGTCGTCGCCGCCCCCGTCCCGGCCCCCCTGGGTTCCCTCAGCC
CAGCCCTGTCCAGCCCCGGTTCCCGGGAGGATGAAGTTCGTGTACAAAGAAGAGCATCCGTTGAGAAGCGCCGCT
CTGAGGGCGAGAAGATCCGAAAGAAATACCCGGACCGGGTGCCGGTGATAGTAGAAAAGGCTCCCAAAGCTCGGA
TAGGAGACCTGGACAAAAAGAAATACCTGGTGCCTTCTGATCTCACAGTTGGTCAGTTCTACTTCTTGATCCGGA
AGCGAATTCATCTCCGAGCTGAGGATGCCTTGTTTTCTTTGTCAACAATGTCATTCCACCCACCAAGTGCCACAA
TGGGTCAGCTGTACCAGGAACACCATGAAGAAGACTTCTTTCTCTACATTGCCTACAGTGACGAAAGTGTCTACG
GTCTGTGAAGCTGCTGCCCCCTGAGCTGGAGGGGGGTCTCATTCTACAAAGAGAGAGGTGGCCCCCCTTTCTTGAC
CTCCTCCTCCTTCAAGCTCAAACACCACCTCCCTTATTACAGGACCGGCATTCTTAATGTTTGTGGCTTTCTCTC
CAGCCTCTCTTAGGAGGGGTAATGGTGGAGTTGGCATCTTGTAACCTCTCCTTTCTCCTTTCTTCCCCTTTCTCTG
CCCGCCTTTCCCATCCTGCTGTAGACTTCTTGATTGTCAGTCTGTGTACATCCAGTGATTGTTTTGGTTTCTGT
TCCCTTTCTGACTGCCAAGGGGCTCAGAACCCAGCAATCCCTTCCTTTCACTACCTTCTTTTTTGGGGGTAGT
TGGAAGGGACTGAAATTGTGGGGGAAGGTAGGAGGCACATCAATAAAGAGGAAACCACCAAGCTG

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FIGURE 4704

GAGACCATGGCGGGTAGCAGCACTGGGGGCGGTGGGGTTGGGGAGACGAAGGTGATTTACCACCTGGATGAGGAA
GAGACTCCCTACCTGGTGAAGATCCCTGTCCCCGCCGAGCGCATCACCTCGGCGATTTCAGAGCGTCCTGCAG
CGGCCCCGCGGGGCCAAGTACTTTTCAAGTCTATGGATCAGGATTTTCGGGGTGGTGAAGGAAGAAATTTTCAGAT
GACAAAGCCCCGCTCCCTGCTTCAACGGAAGGGTGGTATCCTGGCTGGTGTCTCAGATAATCCCCAACCCGAG
ATGGCCCCCTCCAGTCCATGAGCCTCGGGCAGAACTGGCGCCTCCAGCCCCACCTTTACCTCCTTTGCCACCCGAG
AGGACCAGCGGCATTGGGGACTCAAGGCCCTCCATCCTTCCACCCTAATGTGTCCAGCAGCCATGAGAATCTGGAG
CCTGAGACAGAAACCGAGTCAGTAGTGTCACTGAGGCGGGAGCGGCCTCGCAGGAGAGACAGCAGTGAGCATGGC
GCTGGGGGCCACAGGACTGGTGGCCCCCAAGGCTGGAGCGCCACCTGGCCGGATACGAGAGCTCCTCTACCTC
ATGACCAGCGAGCTGGAGAGTACCAGCCTGGGGGACTCGGACGAGGAGGACACCATGAGCAGGTTTCAGCAGCTCC
ACGGAGCAGAGCAGTGCCTCCCGCCTCCTTAAGCGCCACCGGCGGCGAAGGAAGCAGAGGCCACCCCGCCTGGAG
AGGACGTATCCTTCAGCAGCGTCACAGATTCCACAATGTCTCTCAATATCATCACAGTACGCTAAACATGGAG
AAGTACAATCTCTGGGTATCTCCATTGTTGGCCAGAGCAATGAGCGGGGAGACGGAGGCATCTACATTGGCTCC
ATCATGAAGGGTGGGGCTGTGGCGGCCGACGGGCGCATTGAGCCAGGGGACATGCTTTTGCAGGTGAATGACATG
AACTTTGAGAACATGAGCAACGATGACGCTGTGCGGGTGTGAGGGACATTGTGCACAAGCCTGGCCCCATTGTG
CTGACTGTGGCCAAGTGCTGGGATCCCTCTCCTCAGGCCTATTTCACTCTCCCCGAAATGAGCCCATCCAGCCA
ATTGACCCTGCTGCCTGGGTGTCCATTCCGCGGCTCTGACTGGCACCTTCCCAGCCTATCCAGGTTCTCTCTCC
ATGAGCACCATTACATCTGGATCGTCTTTGCCTGATGGCTGTGAAGGCCGGGGTCTCTCCGTCCATACGGACATG
GCATCGGTGACCAAGGCCATGGCAGCTCCAGAGTCTGGACTGGAAGTCCGGGACCGCATGTGGCTCAAGATCACC
ATCCCTAATGCCTTTCTGGGCTCGGATGTGTTGACTGGCTCTACCATCACGTGGAGGGCTTTCTGAGCGGCGG
GAGGCCCGCAAGTATGCCAGCGGGCTGCTCAAAGCAGGCCTGATCCGACACACCGTCAACAAGATCACCTTCTCT
GAGCAGTGCTATTACGTCTTCGGAGACCTCAGTGGTGGCTGTGAGAGCTACCTAGTCAACCTGTCTCTCAATGAC
AACGATGGCTCCAGTGGGGCTTCAGACCAGGATACCCTGGCTCCTCTGCCTGGGGCCACCCCTGGCCCCCTGCTG
CCCCTTTCTCTTACCAATACCCTGCCCCACACCCCTACAGCCCGCAGCCTCCACCCTACCATGAGCTTTCATCT
TACACCTATGGTGGGGGCGAGTGCCAGCAGCCAGCATAGTGAGGGCAGCCGGAGCAGTGGGTGACACGGAGTGAT
GGGGGGGCGAGGGCGCACGGGGAGGCCCCGAGGAGCGGGCCCCGAGTCCAAGTCCGGCAGTGGCAGTGAGTCTGAG
CCCTCCAGCCGAGGGGGCAGCCTTCGGCGGGGTGGGGAAGCAAGTGGGACTAGCGATGGGGGCCCTCCTCCATCC
AGAGGCTCAACTGGGGGTGCCCTAATCTCCGAGCCACCCAGGGCTCCATCCCTATGGACCGCCCCCTGGCATG
GCCCTCCCCTACAACCCCATGATGGTGGTCATGATGCCCCACCTCCACCTCCAGTCCCTCCAGCAGTGCAGCCT
CCGGGGGCCCCCTCCAGTCAGAGACCTGGGCTCTGTGCCCCAGAACTGACAGCCAGCCGCCAAAGCTTCACATG
GCCATGGGCAATCCCAGCGAGTTCTTTGTGGATGTTATGTAGCCCCACTGTGGGGCCAGGCTGGGCCGGGCGCTCC
TGGTGTGTGACTGGGTGTCTGGCCGTATGTGCTTGCTCTTACAGTGCCTGGGCTCAGCCTACCAGCTGCTGCC
ATACAGGAGATTGTGGCCACTGTGACTCTCACCAGCAGTGCTGGTTCTCCCCCTTCCCTCAGGGGTAGACAAG
GGACCTTTGATTATTTTGTGCTTTGTTTTTTATAAGCCTTTTTGGGGGTAAATAGAGTTTCTTACATTTTG
GGACTTTTTTAATAGGCATTTCTCTTTT

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[illegible]

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FIGURE 4706

GGGCCAGCGCGGCCCCGGGCCGCCCTCGCCTCCCACCCAGGGCGCTGAGCACGCACGCCGCCGGCCTGGCGGCGTT
CGCGGGGGCCCCGGGACCAGCCGCCGCCTTCTCCAGGCGCTCCTACTCTCTGGGCATCTGCAGTCCGAGCGGAAGGG
GCGGGAACGTGCGCGACGCCGAGGAGCAAAGCCCACGATCGGCTTCCCAGGGCAGCGGACGGCTGCCTTCCTCCC
GGCGCAAACGCACCGCCCAGGAGGGGGCGGGCTCGGCGGGTTCGGGGGGCGGGGCCGGGTCCGAGCTCGGGCCCCG
CCTCCGCCTCCGCCAGCTCCTGTGAGCTGCCGAGTGCTAGGCACCCGGGCTCTTCTGGGGGGCTCCAGAACTAAGC
CACCCAGACACCATCATCTCGAAAACCCAGCCCTTCTCCCATGGCAGGCTACTTGCCCCCAAAGGCTACGCCC
CTTCGCCCCACCTCCCTACCCTGTCAACCCTGGGTACCCGGAGCCGGCGCTACATCCTGGGCCCCGGGCAGGCGC
CAGTGCCCGCCAGGTACCTGCCCCAGCTCCCGGCTTCGCCCTCTTCCCCTCGCCTGGCCCCGTGGCCTTGGGGT
CTGCTGCCCCCTTCTTGCCACTGCCAGGGGTGCCTTCTGGCCTCGAATTCCTGGTGCAGATTGATCAGATTTGA
TTCACCAGAAGGCTGAGCGAGTGGAACGTTCTAGGCTGGGAGACCTGTAATCGGTATGAACGCGCTCTGGGG
CCGGGCAGCCCCCTGGGTACGGCGGCCGAGGAGAGCAACTGCTGCGCCCGTCTGTGCTGTGGCGCCCGCCGGCCGC
TGCGTGTCGCGCTGGCCGACCCCGGGGACCGTGAGGTGCTGCGTTTGCTCCGCCCCGCTGCACTGTGGCTGCAGCT
GCTGCCCCCTGTGGCCTCCAGGAGATGGAAGTACAGGCTCCACCAGGCACCACCATTGGCCACGTGCTACAGACCT
GGCATCCCTTCCTCCCCAAGTTCTCCATCCAGGATGCCGATCGCCAGACAGTCTTGCGAGTGGTGGGGCCCTGCT
GGACCTGTGGCTGTGGCACAGACACCAAC

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FIGURE 4707

AGTTGGAATCGAAGCCTCTTAAATGGCAGATGACTTGACTTCGAGACAGGAGATGCAGGGGCCTCAGCCACCT
TCCCAATGCAGTGCTCAGCATTACGTAAGAATGGCTTTGTGGTGCTCAAAGGCCGGCCATGTAAGATCGTCGAGA
TGTCTACTTCGAAGACTGGCAAGCACGGCCACGCCAAGGTCCATCTGGTTGGTATTGACATCTTTACTGGGAAGA
AATATGAAGATACTGCCCCGTCAACTCATAATATGGATGTCCCCAACATCAAAGGAATGACTTCCAGCTGATTG
GCATCCAGGATGGGTACCTATCACTGCTCCAGGACAGCGGGGAGGTACGAGAGGACCTTCGTCTCCCTGAGGGAG
ACCTTGGCAAGGAGATTGAGCAGAAGTACGACTGTGGAGAAGAGATCCTGATCACGGTGCTGTCTGCCATGACAG
AGGAGGCAGCTGTTGCAATCAAGGCCATGGCAAAATAACTGGCTCCCAGGGTGGCGGTGGTGGCAGCAGTGATCC
TCTGAACCTGCAG

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FIGURE 4708

GGCCCCCCCCCCCCCTAGAAATGCTCGAACCAGGACGGCTCCTGGAGTCCTCGCGCCCTCGCAGAAGGACTACGG
GCCCCGGCGACCCCGGGGGCGGGGCTTCCGGCGCGCTGCCTTGTGGGCACGGTAGTTCCGCCGGGTCTGGCTTCC
GCCTGCCGAGCGGCCCCGGACCGCAGGCCGGACTACACTTCCCGTCGGCCCGCCTGCTCTCCCGATGCCGCCTTG
GCGCGAGACGTTGGCAAGCAGAGTGTCTCCAAGATGCGCCGCTTGGGGAAGGAGGCGTCTTGCCCCGGGCAGCAGT
GGCGGCAGCGCCCGAGAGAGGGTGAGCTTGTCCGCCACAGACTGCTACATTGTGCATGAGATCTACAATGGGGAG
AATGCCCAAGACCAGTTTGAGTACGAGCTGGAGCAGGCCCTGGAAGCCCAGTACAAGTACATTGTGATTGAGCCC
ACTCGCATTGGCGACGAGACAGCCCGCTGGATCACCGTGGGCAACTGCCTGCACAAGACGGCCGTGCTGGCGGGC
ACCGCTGCCTCTTCACCCCGTTGGCGCTGCCCTTAGATTATTCCCACTACATTTCCCTGCCCGCTGGTGTGCTG
AGCCTGGCCTGCTGCACCCTCTATGGGATCTCCTGGCAGTTTGACCCTTGCTGCAAGTACCAAGTGGAGTACGAC
GCCTATAAACTGTGCGCGCTGCCTCTGCACACACTCACCTCCTCCACCCCGGTGGTGTGCTGGTCCGGAAGGACGAC
CTGCACAGAAAGAGACTGCACAACACGATAGCACTGGCCGCCCTGGTGTACTGTGTAAAGAAGATTTACGAACTC
TATGCCGTATGATTTTCAGTAGAACAGGGAGCGAAGCAAAACCCCGGCCACAAAGAGACAACAGAGTATTCAGA
TCGCCACACTCTGTGAGGCAGCAGAGCCTGGGCAGGTGTTTGGCTTAGTATTTGTTATTTTTAAAAATAACAGA
TCACGGGTGTACCCAGGGTTTTTCAGCTCATTACACTAAGATGTGGATTTCCATAACCCAAGAGGGGGGTCTGAG
GCTGTGGAAGTCCGACTGGGCAGTGGAATGCTGATGGAGGCAGACGCTGCCGAGGGGGTGTGGACGTGCTTTGGG
GGAGGTCTTTAAGTCTATTGTTTAACTGTACCATCCAGAGCCCACCAGAAGCTATTGATCATTAAATTATGAGA
ATTTCAACTCC

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FIGURE 4709

MAAWGRRRLGPGSSGGSARERVSLSATDCYIVHEIYNGENAQDQFEYELEQALEAQYKYIVIEPTRIGDETARWI
TVGNCLHKTAVLAGTACLFTPLALPLDYSHYISLPAGVLSLACCTLYGISWQFDPCKYQVEYDAYKLSRLPLHT
LTSSTPVVLVRKDDLHRKRLHNTIALAALVYCVKKIYELYAV

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FIGURE 4710A

AGGCCAAGTCTGTATCTGCCATGTCTGTGGCGTCCACCTCAACAGGCTGCATTCCCTGCCTCTACTGTGTCTTCT
 TCGGCTGTTTCACAAAGAAGCATATTACGAGCATGCGAAGGCGAAGCGGCACAACCTGGCCATTGATCTGATGT
 ACGGAGGCATCTACTGTTTTCTGTGCCAGGACTACATCTATGACAAAGACATGGAAATAATCGCCAAGGAGGAGC
 AGCGAAAAGCTTGGAAAATGCAAGGCGTTGGAGAGAAGTTTTCAACTTGGGAACCAACCAACGGGAGCTTGAAC
 TGCTGAAGCACAAACCCGAAAAGGAGAAAGATCACCTCGAACTGCACCATAGGTCTGCGTGGGCTGATCAACCTTG
 GGAACACATGCTTCATGAACTGCATCGTGAGGCGCTGACCCACACGCCACTTCTGCGGGACTTCTTCTGTCTG
 ACAGGCACCGCTGTGAGATGCAGAGCCCCAGCTCCTGTCTGGTCTGTGAGATGTCTCTACTGTTTCAGGAGTTTT
 ACTCTGGACACCGGTCCCCTCACATCCCGTATAAGTTGCTGCACCTGGTGTGGACCCACGCGAGGCACCTAGCAG
 GCTACGAGCAGCAGGACGCCCACGAGTTCCCTCATCGCGGCCCTGGACGTGCTCCACCGACACTGCAAAGGTGATG
 ACAATGGGAAGAAGGCCAACAAACCCCAACCACTGCAACTGCATCATAGACCAGATCTTACAGGCGGGTTCAGT
 CAGACGTACCTGCCAAGTCTGCCATGGAGTCTCCACCACCATCGACCCCTTCGGGACATCAGCTTGGATCTCC
 CCGGCTCTTCCACCCCATTTCTGGCCCTGAGCCAGGGAGCGAGGGCAACGTGGTAAACGGGGAAAGCCACGTGT
 CGGGAACCAACACGCTCACGGACTGCCTGCGACGATTACAGAGCCAGAGCACTTGGGACAGCAGCGCCAAAGTCA
 AGTGCAGCGGTTGCCATAGCTACCAGGAGTCCACAAAGCAGCTCACTATGAAGAACTGCCCATCGTAGCCTGTT
 TTCATCTCAAACGATTTGAACACTCAGCCAAGCTGCGGCGGAAGATCACCACGTATGTGTCTTCCCCCTGGAGC
 TGGACATGACCCCTTTTCATGGCCTCCAGCAAAGAGAGCAGGATGAATGGACAGTACCAGCAGCCCCAGGACAGTC
 TCAACAATGACAACAAGTATTCCTGTGTTGCTGTTGTTAACCATCAAGGGACCTTGGAGAGTGGCCACTACACCA
 GCTTTATCCGGCAGCACAAAGACCAGTGGTTCAAGTGTGACGATGCCATCATCACCAGGCCAGCATCAAGGACG
 TCCTGGACAGCGAAGGGTACTTGTGTCTATCACAACAGTTCTTGGAAATACGAGTAGCCTTATCTGCAGCTGG
 TCAGAAAAACAAAGGCAATGCATTGGCAAGCCTCACAAAGTGATCCTCCCTGGCCCCCCCCCTCCCCCAAGTCTCC
 CGCCGCTCCCCGGCCTGGTGACACCACCTCCCATGCAGATGTGGCCCTCTGCACCTGGGACCCATCGGGTCCG
 GATGGACCACACGGGAGGGGAGGCTCCTGGAGCTGCTTTGAAGATGGATGAGATGAGGGGTGTGCTCTGGGTGGG
 AGGAGCAGCGTACACCCGTACCCAGAACATCTCTTGTGTGATGACATGGGGGTGCAACGGGGGCTCACAGCACA
 GAGTGACCGCTGCCTGGCGTTCCCCAGCACTCGGTGGTGGAAAGGCCCTACCTGCTGTAAGATTATGGGTCCATG
 AAAGCAGTAAGCTGGACACAGAGGTGTAGTGTGCGGGACAGAGGGCCTTGAGATGCCTTTCTGTTGGTGTGTTA
 GTGTTAAATACGGAGAGTATGGAACCTTACCTCCATTTTCTCAGCGGCTGTGAAGCAGCCTCCTAGCTTCGG
 AAGTACGGACACTACGTCGCGTTTTCAAGCGTGTCTGTTCTGCAGGTAACAGCATCAAGCTGGAAGTCAAGCAGT
 CTCGCGGTTTTCTAGAAACAGGCATTTTTCTTATCCCTCTCCCGCTCCTTTTTCCACAAAGGTGAATTCATAAAT
 GTAATACTAGTAAAGTGAATGAATTACTGAGTTTATACAGAAATTTAGGTAACCTTCTCCTTTAGTCTCAAGAGCG
 AGTCTTGCTTTTTAATGGGTGCCGTTTTATGTTGCTGCCCGCCCTGTGTGCCTGGCTCCTCTGGGTGCCCTGGTGT
 CTGCTGGTGGCTGGCAGTGGGCGCAGCGGAGGAGATTGTGCTGCAGCTCATACGGTGTGTCTGTCTATCTCAGTC
 TGGAGTAAATGCAGTGTCTGCCGTTGTCTGATGGGTTCTGTCCCTCGTATTTTCTTTGCCCTTCTATCCATTGCC
 TGGCTACCGCTGCCTGGCAGCCAAGGGTGTGGTGCAGAGCTGGAGTGGCCTCTGGTGGAGCCTGCATCTTGTC
 TCGTCTGCCTCTGCTTTACATTTGGTGTACTTTCGGGCGTGGTGGCAGTAAATGACACCGTGATTGAGCTTGTC
 AGCAGAGCTGAAAGAGAAAGTAGAAGGATGTGATTGTTTCTGTAAGATATCTTGCAITGTATCTGTGTATTCAA
 ATTCAAACAGAGATGGTTTGTCCATTTGTCCACTGAGAAATTAGAACTAGGGACAAGGGGGAGGAAAGTACTG
 AAATACAGTTTATGAAGCAAGTGTGTCTCGGGCTGTGCTTGTCCAGGAGCCCCAGCAGCATCTGAAGTGGCT
 TCTTCAGTCTCTGCAGGAACAGGATCATCTGTCTCAGCGGTGGGCGAGTGTTCATAGACAGCCAGGGAGTAAAC
 ACTGTTGGCTCTGTGGGCTGTATGGTCTCTGCCATAAATAGTACAGAGATGTGGCTGTGTCTAGTACAACTTTTA
 GACACAGAAATCTGAATGACATATATTGTTCTGTGTCAAGAACTTAGATTTTTTTTTTAAGTATTAAAAACGT
 GAAACCTATTCTTAGCTCACAGGCCATGGAGAAGCTGGTGGGGACCAGACCCAGCTCCTTAGCTGGCTGGGCTGG
 GGAGGGGGTAGTGACAGTGGCAGCTGCTACTCACTGCTCAGTGTGGAAAACACAGGACTTGGCAATCACAGCCCCG
 CAGAACCATCATGTGTGGCAGAAGCCTGAGGGATGCGGTTTTCTGCCCACGTGCTCTGTTTCAATTTCTGTTGTTT
 TTCTGCACTTAAAGAATTACATGGAAGCATGTTTTATAAAATGAATTACCAGAGAAACAGAGATGGGCCGAGAT
 TTTGAGAAATGGTCCCATGTGACCAAGTTCTGCTGTTTGGGTGACAGTGTGTTGAAGATCTCCTTTGAGGATGTG
 CAGTCTTTTTTTTTTTTTTTTTTGTAGATGGAGTTTGTGCCCAGGCTGGAGTGTGAGTGGCACAGTCTCGGCTCACTG
 CAACCTCCACCTCCTGGGTTCAAGCAGTTCTCGTGCCGACGCTCCCAAGTAGCTGGGACTACAGGCATGCACCA
 CCACGCCAGGCTAATTTTTGTATTTTAGTAGAGATGGGGTTTACCATGTCTCAAACCTCTGACCTCAGGCGAT

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FIGURE 4710B

CCACCCACCTCAGCGTCCCAAAGTGCTGGGATTATAGGCGTGAGCCACCGCACCTGGCCTATGAGTGGTCTTTTA
ATTAGGAACAAATCTAATGGAAAGGAGAGTTGACTGAAGTTGGCCACAGGATTGTGAGCTGGGCAGTGCCTTCA
TGAAGGCTTGCCACCTTGGGACGCCCCAGTTTACTGGGGTGTCTTGCGGAGTGCAGAAGGCTTTCTGGCAGCTGC
CTGGGTTTGGCCAGACCCTGCCTCCCCCTCCCGCCGGCCAACCCCTAGTCCCCTTCCTGTCTCCACTTGCATTAG
GGGTGGCTGCTGTTCTGAGAACATTAGAACTGGGAAGAGAGATGGAGTCACATGGATTTTTGGTGGGCATTATTC
TAAACTTTCGTATCCAAGTTAGTCCCCCTTATTCCACTGTGGCATTGCCGTTCTAAGCAGTTACCTGATGCCTGC
TGCTGAAGAGCTGCTCACAGGAGGCGGCGGCGGCCCTGGCACTGCCCTTGCAATTAGGTCTTGTGTTTGATGTGT
TCTTGGAATTTACTTTGTGAGAACAAATATTTACGCGTTGGGTTTCAGGAATTTCTTTTAGCTCCCCATCTGGC
TGTGAAATTCAGGAAACCTCCCGTTGCCTAGTAATCACCCCATGTAGGTGTACATTGTGACAAAGTGCATCTGAC
CACTAAGGGGCCCCCTTGGTGACCCAGCACATTACAGCAGTGTTAAAATGGCCTGCATTTTGGAGATGCTGGC
TGGCCTTTCAGTGCTCCCAAGAACACATGGCCTTTCCCTCTTCAGATGCCTGAAGGGAGTGCCTTGAGGCAG
GTGATGTGCTGGGAGTGTGGGCGGCCTCCCTCTGGCCCCGGGGCCCTCTGTGGACCTTGGCTCCCTCCGTGGACC
TGGGCTTCGTGGTGAGCACTGCAGCCTCCCTGGGCATTCCCTCCAGCGCCAGCACCACTGCAACATATAGACCTG
AGTGCTATTGTATTTGGCTTGGTGTGTATGCTCTTCATTGTGTAAAATTGCTGTTCTTTTGACAATTTAAGTGA
TTGTTTTGTTTACTGTAAGTTTGAATAAAAAATGAAGAAAAAATTCCAATGACTGTGCTGTGGTTGGAGACTT
TATTTACCAAGATGTTTACTCTTCCTTTCCCTTCCATTTTGAGGAGCTGTGTCACTCCTCCTCCCCCCCAGTGC
TTTGTAGTCTCTCCTATGTCATAATAAAGCTACATTTTCTCTG

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FIGURE 4711

MVSRPEPEGEAMDALAVAPPGCSHLGSFKVDNWKQNLRAIYQCFVWSGTAEARKRKAKSCICHVCGVHLNRLHS
CLYCVFFGCFTKKHIHEHAKAKRHNLAIDLMYGGIYCFQCQDYIYDKDMEIIAKEEQRKAWKMQGVGEKFSTWEP
TKRELELLKHNPKRRKITSNCTIGLRGLINLGNTCFMNCIVQALHTHTPLLRDFFLSDRHRCEMQSPSSCLVCEMS
SLFQEFYSGHRSPHIPYKLLHLVWTHARHLAGYEQQDAHEFLIAALDVLHRHCKGDDNGKKANNPNHCNCIIDQI
FTGGLQSDVTCQVCHGVSTTIDPFWDISLDLPGSSTPFWPLSPGSEGNVVNGESHVSGTTTTLTDCLRRFTRPEHL
GSSAKIKCSGCHSYQESTKQLTMKKLPVACFHLKRFEHS AKLRRKITTYVSFPLELDMTPFMASKE SRMNGQY
QQPTDSLNNNDNKYSLFAVVNHQGTLES GHYTSFIRQHKDQWFKCDDAIITKASIKDVLDSEGYLLFYHKQFLEYE

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[illegible]

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FIGURE 4712B

GCCCTGTTCCCTGGAGTCAGGGTGAACCTGCAAAACCTTTGGCTGAGACCTGGGATTTGAGATACCACAAACCCTGC
TGAACAGAGTGCTGTTCAGCAAACTAACCAGCATTCCCTATAGCCTAGGGAATAGTATAGAAGTCTGGCAAAAA
CAGAAACAGAACATCAGTGTTTTGAGAACCCTTGGACTACTCCTGTCCCTGTAGCTCAGTCATCAAAGCAGAAGCC
TGGCTTTGCTCTATTAAGATTGGAAATGTACACTACCAAACACTCAGTCCACTGTTGAGCCCCAGTGCTGGAAGG
AAGGAGGGCCTTTCTTCCTGTGTTAATTGCATGGAGGCTACAGGGGTTAGCCTGGACTAAAGGCATCCTTGTGTT
TTGAGCTATTACCTCAGTAGAAAAAGATCTAAGGGAAGATCACTGTAGTTTAGCTCTGTTGACCTGTGCACCTA
CCCTTGGAAATGTCTGCTGTTATTTCTAATTCCACAGGTCATAAGATGCCTTCTTGATGATATATGAACGATAA
AAACAACTTTCACTTCTTCCTATTGTAATCGTGTGCCATGGATCTGATCTGTACCATGACCCTACATAAGGCTGG
ATGGCACCCTCAGGCTGAGGGCCCCAATGTATGTGTGGCTGTGGGTGTGGGTGTGGGTGTATCTGCTGAGTAAGG
AACACTATTCTCAAGATTCTAAAGCTCAATTCAAGTGACACATTAATGATAAACTCAGATCTGATCAAGAGTCTG
GATTTCTAACAGTCCTTGCTTCGGGGCTGTGCTGGCAACTTAACTCGGGTGCCCTTACATCTTTTCTAATCATAGT
GTTGCATATGAGCCTGCCCTCACTCCCTCTGTGGAATCCCTTTGCACCTGAGAGCCTACTGAAGTGGCTGGTAGA
AAAAGGGGCCTGAGTGAAGGATTATCAGTATCGCGATTTGCAGGATTCCTTCTGGGCTTCATTCTGGAAACCTT
TGTTAGGGCTGCTTTTAAGTGCCACATTTGATGGAGGGTGGAAGTAATTTGAATGTATTTGATTTATATATATA
TATATTTTAAAGGTTAAAAGATGGTTGTAGCATTTAAATGGAAAATTTCTCCTCGGTTTGCTAGTATCTTGGG
TGTATTCTCTAAGTGTAGCTCAAATAGGTCATCATGAAAGGTTAAAAAGTGAGGTGGCCATGTTACGCTGGT
GGTTAAGGCCAGGGCCTCTCCTACCACTGTGCCACTGACTTGCTATGTACCCCTGGGCAAGTCACTTAACTATAA
GGTGCTCAGTTTTCTTCTGTAAATGGGGATAATAATACTGACCTACCTCAAAGGGCAGTTTTGAGGCGTGA
CTAATGCTTTTTAGAAAGCATTTTGGGATCCTTCAGCACAGGGATTCTCAAGACCTGAGTATTTTTTATAATAGC
AATGTCCACCATCAACTTGATATGTCCGTGTGTCCCAGATGCTGTCTATTAGTCTATATGGTTCTCCAAAAAATTG
AATGAATCCATTGGAGAAGCAGTGGATTAACTAGCCAGACAAAATTTGAGAATGCATAAAAAACACATTGCCACG
GAAACATACAGAGGATGCCTTTTCTGTGATTGGGTGGGATTTTTTCCCTTTTTATGTGGGACATAGTAGTTACTT
GTGACAAGAATAATTTTGAATAATTTCTATTAAACATCAACTCTGAAGCTAATTGTACTAATCTGAGATTGTGTT
TGTTTATAATAAAAGTGAAGTAATC

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FIGURE 4713

ACGGTCACCCGTTGCCAGCTCTAGCCTTTAAATTCCCGGATCGGGCACCTCCACGCACCGCGGGCTAGCGCCGACA
CCCAGCTAGCGTGCAAGGCGCCGCGGCTCAGCGCGCACCGGGCGGGCTTCGAAATCGCAGTCCTCCGGCGACCCCG
AACTCCGCCCCGGAGCCTCAGCCCCCTGGAAAGTGATCCTGGCATCCGAGAGCCAAGATGCCGGGCCACTTGTCTGC
AGGACGATATCTCTAGCTCCTATACCACCACCACCACCATTACAGCGCCTCCTTCCAGGGTCCCGCAGAATG
GAGGAGATAAGTTGGAGACGACGCCCCCTCTACTTGAAGAAGACATTGCCCCCTGATATAAAAGATGATATATATA
ACCTCACCTACAAGGATAAGGAAGGCCCAAGCCCCAAGGTTGAATATGTCTGGAGAAACATCATCCTTATGTCTC
TGCTACACTTGGGCGCCCTGTATGGGATCACTTTGATTCTTACCTGCAACTTATACACCTGGCTTTGGGGGGTAT
TCTACTATTTTATCAGTGCCCTGGGCATAACAGCAGGAGCTCATCCTCTGTGGAGCCACTGATCTTACAAAGCTC
GGCTGTCCCTGTGGCTCTTTCTGATCATTGCCAACACAATGGCATTCCAGAATGATGTCTATGAATGGGCTCGCG
ACCACCGTGCCCAACACAAGTTTTTCAGAAACACATGCTGATCCTCATAATTCCTGACGTGGCTTTTTCTTCTCTC
ACGTGGGTTGGCTGCTTGTGCGCAAACACCCAAGTGTCAAAGAGAAGGGCAGTACGCTAGACTTGTCTGACCTAG
AAGCCGAGAACTGGTGATGTTCCAGAGGAGGTACTACAAACCCGGCTTGCTGTTGATGTGCTTCATCCTGCCCA
CGCTTGTGCCCTGGTGTCTTCTGGGGTGAACTTTTCAAACAGCGTGTTTCGTTGCCACTTTCTTGCGATATGCTG
TGGTGCTTAATGCCACGTGGCTGGTGAACAGTGCTGCCCACCTCTTCAGATATCGTCCTTATGACAAGAACATTA
GCCTCCGGGAGAATATCCTGGTTTTACCTGGAGCTGTGGGTGAGGGCTTTCACAACTACCACCCTCCTTTCCCT
ATGACTACTCTGCCAGTGAGTACCGCTGGCACATCAACTTCACCACATTCTTCATTGATTGCATGGCCGCCTTCG
GTCTGGCCTACGACCAGAAGAAAGTCTCCAAGGCCGCCATCTTGGCCAGGATTAAGAAGAACCGGAGAGGGAACT
ACAAGAGTGGCTGAGTTTGGGGTCCCTCAGGTTCCCTTCTTCAAAGCCAGCCAGGCAGAGGTTTAAATGTCTGTT
TATTAATACTGAATAATGTACCAAGGATGCTAAAGATGATGATGATAACCCATTCCAGTACAGTATTCTTTTAA
AATTCGAAAGTATTGAAAGCC

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FIGURE 4714

CTTCCCTTTTTCGGCCATCACCGAAGCGGGAGCGGCCAAAATGAAGTTTAATCCCTTTGTGACTTCCGACCGAAG
CAAGAATCGCAAAAGGCATTTCAATGCACCTTCCCACATTGGAAGGAAGATTATGTCTTCCCTCTTTCCAAAGA
GCTGAGACAGAAAGTACAACGTGCGATCCATGCCCATCCGAAAGGATGATGAAGTTCAGGTTGTACGTGGACACTA
TAAAGGTCAGCAAATTGGCAAAGTAGTCCAGGTTTACAGGAAGAAATATGTTATCTACATTGAACGGGTGCAGCG
GGAAAAGGCTAATGGCACAACTGTCCACGTAGGCATTACCCCAGCAAGGTGGTTATCACTAGGCTAAAACCTGGA
CAAAGACCGCAAAAAGATCCTCGAACGGAAAGCCAAATCTCGCCAAGTAGGAAAGGAAAAGGGCAAATACAAGGA
AGAAACCATTGAGAAGATGCAGGAATAAAGTAATCTTATATACAAGCTTTGATTAAAACCTTGAACAAAGAAAAA

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FIGURE 4715

MKFNPFVTSDRSKNRKRHFNAPSHIRRKIMSSPLSKELRQKYNVRSMPIRKDDEVQVVRGHYKGQQIGKVVQVYR
KKYVIYIERVQREKANGTTVHVGIHPSKVVI TRCLKDKDRKKILERKAKSRQVGKEKGKYKEETIEKMQE

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FIGURE 4716A

GGAGAAAGCGGGCGGAAGTTCCACGCCAAGATACTGGATTGCGGTGCTGAGGCGGGCGGCTGCGGCACGGGAAAGGC
TCAGTGACTGAAGCTCCAAAGGCCAGCAGGCTGGTGGGGACGTGACCGAAGCGAGGCTCTGGTTCCCTTTTCGGTG
GGCGCCATTTGAGCCTCATCTCTGGCTTCCCCAGGATGCGCCGGCAGCCGGGGAGCGGCTCCGGGCGCGAGGTCT
GAGGATGATCTTTCTGTGCGCCGCTACGCGCTCCGGTGGCTGCGACGGCCCGAAGACCGTGCTTTTCCCAGCGC
CGCCATGGAGATGGCCCTCCGAGGCGTGCGGAAAGTCTCTGTGTGGCCGAAAAAACGACGCGGCCAAGGGGAT
CGCCGACCTGCTGTCAAACGGTCGCATGAGGCGGAGAGAAGGACTTTCAAATTCAACAAGATCTATGAATTTGA
TTATCATCTGTATGGCCAGAATGTTACCATGGTAATGACTTCAGTTTCTGGACATTTACTGGCTCATGATTTCCA
GATGCAGTTTCGAAAAATGGCAGAGCTGCAACCTCTTGTCTCTTTGAAGCAGAAATTGAAAAGTACTGCCCAGA
GAATTTTGTAGACATCAAGAAAACTTTGGAACGAGAGACTCGCCAGTGCCAGGCTCTGGTGATCTGGACTGACTG
TGATAGAGAAGGCGAAAAACATCGGGTTTGGATTATCCACGTGTGTAAGGCTGTAAAGCCCAATCTGCAGGTGTT
GCGAGCCCGATTCTCTGAGATCAACCCCATGCCGTGAGGACAGCTTGTGAAAACCTGACCGAGCCTGATCAGAG
GGTGAGCGATGCTGTGGATGTGAGGCAGGAGCTGGACCTGAGGATTGGAGCTGCCTTTACTAGGTTCCAGACCCT
GCGGCTTCAGAGGATTTTCTGAGGTGCTGGCAGAGCAGCTCATCAGTTACGGCAGCTGCCAGTTCCCCACACT
GGGCTTTGTGGTGGAGCGGTTCAAAGCCATTGAGGCTTTTGTACCAGAAATCTTCCACAGAATTAAAGTAACTCA
TGACCACAAAGATGGTATCGTAGAATCAACTGGAAAAGGCATCGACTCTTTAACCACACGGCTTGCCTAGTTCT
CTATCAGTTGTGTGGAGGATCCCATGGCAACTGTGGTAGAGGTGAGATCTAAGCCCAAGAGCAAGTGGCGGCC
TCAAGCCTTGAGACTGTGGAGCTTGAGAAGCTGGCTTCTCGAAAGTTGAGAATAAATGCTAAAGAAACCATGAG
GATTGCTGAGAAGCTCTACACTCAAGGGTACATCAGCTATCCCCGAACAGAAACAAACATTTTCCCAGAGACTT
AAACCTGACGGTGTGGTGGAAACAGCAGACCCCCGATCCACGCTGGGGGGCCTTTGCCCAGAGCATTTCTAGAGCG
GGGTGGTCCCACCCACGCAATGGGAACAAGTCTGACCAAGCTCACCTCCCATTCACCCACCAAATACACCAA
CAACTTACAGGGAGATGAACAGCGACTGTACGAGTTTATTGTTGCGCCATTTCTGGCTTGCTGCTCCCAGGATGC
TCAGGGGCGAGAGACCACAGTGGAGATCGACATCGCTCAGGAACGCTTTGTGGCCCATGGCCTCATGATTCTGGC
CCGAAACTATCTGGATGTGTATCCATATGATCACTGGAGTGACAAGATCCTCCCTGTCTATGAGCAAGGATCCCA
CTTTCAGCCAGCACCCTGGAGATGGTGGACGGGAGACCAGCCACCCAAGCTGCTCACCAGGCCGACCTCAT
TGCCCTCATGGAGAAGCATGGCATTGGTACGGATGCCACTCATGCGGAGCACATCGAGACCATCAAAGCCCGGAT
GTACGTGGGCTCACCCAGACAAGCGGTTCTCCCTGGGCACCTGGGCATGGGACTTGTGGAAGGTTATGATTCT
CATGGGCTATGAAATGTCTAAGCCTGACCTCCGGGCTGAACTGGAAGCTGATCTGAAGCTGATCTGTGATGGCAA
AAAGGACAAATTTGTGGTTCTAAGGCAGCAAGTGCAGAAATACAAGCAGGTTTTTATTGAAGCGGTGGCTAAAGC
AAAGAAATTGGACGAGGCTTGCCCCAGTACTTTGGGAATGGGACAGAGTTGGCCAGCAAGAAGATATCTACCC
AGCCATGCCAGAGCCCATCAGGAAGTGCCACAGTGCAACAAGGACATGGTCCTTAAGACCAAGAAGAATGGCGG
GTTCTACCTCAGCTGCATGGGTTTCCCAGAGTGTGCTCAGCTGTGTGGCTTCTGACTCGGTGCTGGAGGCCAG
CAGGGACAGCAGTGTGTGTCCAGTTTGTGAGCCACACCCTGTGTACAGGTTAAAGTTAAAGTTTAAAGCGCGGTAG
CCTTCCCCCGACCATGCCTCTGGAGTTTGTGTTGCTGCATCGGCGGATGCGACGACACCCTGAGGGAGATCCTGGA
CCTGAGATTTTTCAGGGGGCCCCCAGGGCTAGCCAGCCCTCTGGCCGCCTGCAGGCTAACCAGTCCCTGAACAG
GATGGACAAACAGCCAGCACCCTGCTGACAGCAGACAGACTGGGTCTCAAAGGCTCTGGCCAGACCCT
CCCACCACCCACGGCTGCTGGTGAAAGCAATTCTGTGACCTGCAACTGTGGCCAGGAGGCTGTGCTGCTCACTGT
CCGTAAAGGAGGGCCCCAACCGGGGCGGCAGTTCTTTAAGTGCAACGGAGGTAGCTGCAACTTCTTCTGTGGGC
AGACAGCCCCAATCCGGGAGCAGGAGGGCCTCTGCCTTGGCATATAGACCCCTGGGCGCCTCCCTGGGATGCCC
ACCAGGCCAGGGATCCACCTAGGTGGGTTTGGCAACCCTGGTGATGGCAGTGGTAGTGGCACATCTGCCTTTG
CAGCCAGCCCTCCGTACACGGACTGTGCAGAAGGATGGACCCAACAAGGGGCGCCAGTTCCACACATGTGCCAA
GCCGAGAGAGCAGCAGTGTGGCTTTTCCAGTGGGTGATGAGAACACCGCTCCAGGGACTTCTGGAGCCCCGTC
CTGGACAGGAGACAGAGGAAGAACCTGGAGTGGGAAGCCAGAAGCAAAAGGCCCGGGCCAGTTCTCTCAGACAT
GGGGTCCACAGCAAGAAACCCCGAAATGCAGCCTTTGCCACCAGCCTGGACACACCCGCTCCCTTTTGTCTCA
GAACAGATGAGCTCAGGGTAGGGTAGAGAAGCCACTTTCTCAGACCTGTCCCCTTTGTGTTTAGAAATGAGTTA
ACCAGGACCAAGTGGCCATTTAGTGTCTGGAACTTAGAGGACAGTGTGGCCTTTGGAGTCGGGCTTCTTGT
GTTAAGGGGCAAGGTCCAGATCACTCTGGAGCAGGCCAGCTCTGCTGGACAGTGACCCTCTTCCCAGGCCTCA
GGAGTGACCATAGCCACTGCTGAAAAGTCACGAGCTGCTCCCTCGGACCCCCAAGGATGGTTGCTGTTAGCAG
AGGATTGGTGCAGTCCCAGCTGAAGCCCACTGTGTGCCAAAGGAAGAAGCTCCCAGGGCTGCTTCTTACCTGC

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FIGURE 4716B

AGAAAGCCCCAAGTGAGCCACCAGCACTCATGGGGCAGTCCCTGTCCAGGCTGCCCAGGGCTTCTCATAGACGTC
CTGAGAAGGACGGTGTAATGCAAGGAAATGGCTGTGGTAACACTGATCCTTCAGAAGAAGCTTCATTCCCTCTTA
ATCTAGTTAAGCCAGGACATCCAGAATTCATTGCTTTAATAAAGAACCCAGGCCGGG

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FIGURE 4717

MIFPVARYALRWLRRPEDRAFSRAAMEMALRGVRKVLCAEKNDAAKGIADLLSNGRMRRREGLSKFNKIYEFDY
HLYGQNVMTMVTISVSGHLLAHDFQMQRKWQSCNPLVLFEAIEKYCPENFVDIKKTLERETRQCQALVIWTD
CD
REGENIGFEIIHVCKAVKPNLQVLRARFSEITPHAVRTACENLTEPDQRVSDAVDVRQELDLRIGAAFTRFQTLR
LQRIFFPEVLAEQLISYGSCQFP TLGFVVERFKAIQAFVPEIFHRIKVTHDHKD GIVEFNWKRHRLFNHTACLVLY
QLCVEDPMATVVEVRSKPKSKWRPQALDTVELEKLASRKLRLINAKETMRIA EKLYTQGYISYPRTE
TETNIFPRDLN
LTVLVEQQTPDPRWGAFQSI LERGGPTPRNGNKSDQAHPP IHPTKYTNNLQGDEQRLYEFIVRHFLACCSQDAQ
GQETTVEIDIAQERFVAHGLMILARNYLDVYPYDHWSDKILPVYEQGSHFQ PSTVEMVDGETSPPKLLTEADLIA
LMEKHGIGTDATHAEHIETIKARMYVGLTPDKRFLPGHLGMGLVEGYDSMGYEMSKPDLRAELEADLKLI
CDGKK
DKFVVL RQQVQKYKQVFIEAVAKAKKLDEALAQYFGNGTELAQQEDIYPAMPEPIRKCPQCNKDMVLKTKKNGGF
YLSCMGFPECRSAVWLPDSVLEASRDSSVCPVCQPHPVYRLKLKFKRGSLPPTMPLEFVCCIGGCDDTLREILD
L
RFSGGPPRASQPSGRLQANQSLNRMDNSQHPQPADSRQTGSSKALAQTLPPPTAAGESNSVTCNCGQEAVLLTVR
KEGPNRGRQFFKCNGGSCNFFLWADSPNPGAGGPPALAYRPLGASLGCPPGPGIHLGGFGNPGDGS
SGTSC LCS
QPSVTRTVQKDGP NKGRQFHTCAKPREQQCGFFQWVDENTAPGTSGAPSWTGDRGRTLESEARSKRPRASS
SDMG
STAKKPRKCSLCHQPGHTRPFCPQNR

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FIGURE 4718

GCCACTGCTGAAAAGTCACGCAGCTGCTCCCTCGGACCCCCCAAGGATGGTTGCTGTTAGCAGAGGATTGGTGCA
GTCCCAGCTGAAGCCCCTGTGTGCCAAAGGAAGAAGCTCCCAGGGCTGCTTCCTTCACCTGCAGAAAGCCCCAA
GTGAGCCACCAGCACTCATGGGGCAGTCCCTGTCCAGGCTGCCCAGGGCTTCTCATAGACGTCCTGAGAAGGACG
GTGTAATGCAAGGAAATGGCTGTGGTAACACTGATCCTTCAGAAGAAGCTTCATTCCCTCTTAATCTAGTTAAGC
CAGGACATCCAGAATTCATTGCTTTAATAAAGAACCCAGGCCGGGTGCAGTGGCTCATGCCTGTAATCCCAGCAC
TTTGGGAGGCTGTGGGGGGCGGATTGCCTGAGCTCAGGAGTTTCGAGACCAGCCAGGGCAACATGGTGAAACCCTG
TCTCTACTAAAAATACAAAAAATTAGCCAGGTGTGGCGGTGTGCGCCTGTAGACCCGGCTACTCAGGAGGCTGAGG
TTGCAGTGAGCTGAGATCGGGCCATTGCACTCCAGCCTGGGCAAAAAGAGTGAAACTCTGTCTCAAGAAAAAAA
AAAAA

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FIGURE 4719A

CTAGCCCGGCGCGGCCCGGCAGCGAGAGCGGCGCCATCGAGGCCACCGGGGTGCTGCCGTTTCGTGCGTGGCGTGG
ACCTCAGCGGCAACGACTTCAAGGGCGGCTACTTCCCTGAGAATGTCAAGGCCATGACCAGCCTGCGGTGGCTGA
AGCTGAACCGCACTGGCCTCTGCTACCTGCCGAGGAGCTGGCCGCCCTGCAGAAGCTGGAACACTTGTCTGTGA
GCCACAACAACCTGACCAGCTTCATGGGGAGCTGTCCAGCCTGCCATCGCTGCGCGCCATCGTGGCCCCGAGCCA
ACAGTCTGAAGAAATCCCGAGTCCCCGATGACATCTTCAAGCTAGATGATCTCTCAGTCTTGGACTTGAGCCACA
ACCAGCTGACAGAGTGGCCGCGGGAGCTGGAGAACGCCAAGAACATGCTGGTGTGTAACCTCAGCCACAACAGCA
TCGACACCATCCCCAACAGCTCTTCATCAACCTCACTGACCTACTATACCTGGACCTCAGCGAGAACCGCCTGG
AGAGCCTGCCCCCGCAGATGCGCCGCTGGTGCACCTGCAGACGCTCGTGCTCAATGGAAACCCCTGCTGCATG
CACAGCTCCGGCAGCTCCCAGCGATGACGGCCCTGCAGACCCTGCACCTGCGGAGCACCCAGCGCACCCAGAGCA
ACCTGCCCCACAGCCTGGAGGGTCTGAGCAACCTCGCAGACGTGGATCTGTCTGCAATGACCTGACACGGGTGC
CCGAGTGTCTGTACACCCCTCCCCAGCCTGCGCCGCTCAACCTCAGCAGCAACCAGATCACGGAGCTGTCCCTGT
GCATAGACCACTGGGTGCACGTGGAACCTCTGAACCTGTCCCGAAATCAGCTCACCTCACTGCCCTCAGCCATTT
GCAAGCTGAGCAAGCTGAAGAAGCTGTACCTGAATTCCAACAAGCTGGACTTTGACGGGCTGCCCTCAGGCATTG
GCAAGCTCACCAACCTGGAAGAGTTTCATGGCTGCCAACAAACCTGGAGCTGGTCCCTGAAAGTCTCTGCAGGT
GCCCCAAGCTGAGGAAACTTGTCTGAACAAGAACCACCTGGTGACCTCCCAGAAGCCATCCATTTCTTGACGG
AGATCGAGGTCTTGGATGTGCGGGAGAACCCCAACCTGGTTCATGCCGCCAAGCCCGCAGACCGTGCCGCTGAGT
GGTACAACATCGACTTCTCGCTGCAGAACCAGCTGCGGCTAGCGGGTGCCTCTCTGCTACCGTGGCTGCAGCTG
CAGCTGCAGGGAGTGGGCCCAAGGACCTATGGCTCGCAAGATGCGACTGCGGAGGCGCAAGGATTACGCCCAGG
ATGACCAGGCCAAGCAGGTGCTGAAGGGCATGTTCAGATGTTGCCAGGAGAAGAACAAGCAGGAGGAGAGCG
CAGATGCCCGGGCCCCCAGCGGGAAGGTGCGGCGTTGGGACCAGGGCCTGGAGAAGCCCCGCCTTGACTACTCCG
AGTTCTTTCAGGAGGACGTGGGCCAGCTGCCCGACTGACCATCTGGCAGATAGAGAACTTCGTGCCTGTGCTGG
TGGAGGAAGCCTTCCACGGCAAGTTCTACGAGGCTGACTGCTACATTGTGCTCAAGACCTTTCTGGATGACAGCG
GCTCCCTCAACTGGGAGATCTACTACTGGATTGGCGGGGAGGCCACACTCGACAAGAAAGCTTGTCTGCCATCC
ACGCTGTCAACTTGCACAACCTACCTGGGTGCTGAGTGCCGCACTGTCCGGGAGGAGATGGGCGATGAGAGCGAGG
AGTTCTTGCAGGTGTTTGACAACGACATCTCCTACATTGAGGGTGGAAACAGCCAGTGGCTTCTACACTGTGGAAG
ACACACACTATGTACCAGGATGTATCGTGTGTATGGGAAAAAGAACATCAAGTTGGAGCCTGTGCCCCCTCAAGG
GGACCTCTCTGGACCCAAGGTTTGTTCCTGCTGGACCGAGGGCTAGACATCTACGTATGGCGGGGGGCCAGG
CCACACTGAGCAGCACCACCAAGGCCAGGCTCTTTGCAGAGAAAATTAACAAGATGAGCGGAAAGGGAAGGCTG
AGATCACACTGCTGGTGCAGGGCCAGGAGCTCCAGAGTTCTGGGAGGCACTGGGTGGGGAGCCCTCTGAGATCA
AGAAGCACGTGCTGTAAGACTTCTGGCCGCGCAGCCCAAGCTGTACAAGGTGGGCTGGGCTTGGGCTACCTGG
AGCTGCCACAGATCAACTACAAGCTCTCGTGGAACATAAGCAGCGTCCCAAGGTGGAGCTGATGCCAAGAATGC
GGCTGCTGCAGAGTCTGCTGGACACGCGCTGCGTGTACATTCTGGACTGTTGGTCCGACGTGTTTCATCTGGCTCG
GCCGCAAGTCCCCGCGCCTGGTGCAGCTGCCGCCCTCAAGCTGGGTGAGGAGCTGTGCGGGATGCTGCACCGGC
CACGCCATGCCACGGTCAGCCGACGCTCGAGGGCACCAGGGCGCAGGTGTTCAAGGCCAAGTTCAAGAATTGGG
ACGATGTGTTGACGGTGGACTACACACGCAATGCGGAGGCCGTGCTGCAGAGCCCGGGTCTCTCCGGGAAGGTGA
AACGCGACGCCGAGAAGAAAGACCAGATGAAGGTGACCTCACTGCGCTTTTCTGCGCGGCAGCCGCCCATGT
CGCTGGCCGAGGCGGAGCAGCTGATGGAGGAGTGGAAACGAAGACCTAGACGGCATGGAGGGTTTCTGTGCTGGAGG
GCAAGAAGTTTGCAGCGCTGCCGGAAGAGGAGTTTGGCCACTTCTACACGCAGGACTGCTACGTCTTCTCTGCA
GGTACTGGGTGCCTGTGGAGTACGAGGAGGAGGAAAAGGAAGACAAGGAGGAGAAGGCCGAGGGCAAAGAAG
GCGAGGAAGCAACCGCTGAGGCAGAGGAGAAGCAGCCAGAGGAGGACTTCCAGTGCATCGTGTACTTCTGGCAGG
GCCGTGAAGCCTCCAATATGGGCTGGCTCACCTTCACTTTCAGCCTGCAAAAGAAGTTCGAGAGCCTCTTCCCTG
GGAAGCTGGAGGTGGTACGCATGACGCAGCAGCAGGAGAACCCCAAGTTTCTGTCCATTTCAAGAGGAAGTTCA
TCATCCACCGGGGCAAGAGGAAGGCGGTCCAGGGCGCCCAACAGCCAGCCTCTACCAGATCCGCACCAACGGCA
GCGCCCTCTGCACCCGGTGCATCCAGATCAACACCGACTCCAGCCTCCTCAACTCCGAGTTCTGCTTATCTCA
AGGTTCCCTTTGAGAGTGAGGACAACCAGGGCATCGTGTATGCTGGGTGGGCGGGCATCAGACCCTGACGAAG
CCAAGTTGGCAGAAGACATCCTGAACACCATGTTTGACACCTCCTACAGCAAGCAGGTTATCAACGAAGGTGAGG
AGCCTGAGAACTTCTTCTGGGTGGGCATTGGGGCACAGAAGCCCTATGATGACGATGCCGAGTACATGAAACACA
CACGTCTCTTCCGGTGCTCCAACGAGAAGGGCTACTTTGCAGTGACTGAGAAATGCTCCGACTTTTGCCAAGATG

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FIGURE 4719B

ACCTGGCAGATGATGACATCATGTTGCTAGACAATGGCCAAGAGGTCTACATGTGGGTGGGGACCCAGACTAGCC
AGGTGGAGATCAAGCTGAGCCTGAAGGCCTGCCAGGTATATATCCAGCACATGCGGTCCAAGGAACATGAGCGGC
CGCGCCGGCTGCGCCTGGTCCGCAAGGGCAATGAGCAGCACGCCTTTACCCGCTGCTTCCAAGCCTGGAGCGCCT
TCTGCAAGGCCCTGGCCTAAGACAGGCTGGCACAGCCCCAGGCTTGGTGAGGAAGAGGAAGGGGCCTCATCCACT
GTCTGCTAGCAAAGAATGTACTCAGGTGACACCACCTGCTCCAGCCACGTCCAGTGCCACAGTCCCCAGTAGCCT
CAAGCAGCACCAATGGGGATGACCCTGACAGGTGCCCTCAGGGGTCTGGGAAATCCAACCTCTCTCCACAGTGTGA
GTGCACGTGTGAAGCCCCCTCACTCTTCCGCTAGGGATAAAGCAGATGTGGATGCCCTTTAAGAGATATTAAATG
CTTTTATTTTCAATATT

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FIGURE 4720

MEATGVLPPFVRGVDLSGNDFFKGGYFPENVKAMTSLRWLKLNRITGLCYLPEELAALQKLEHLSVSHNNLTTLHGEL
SSLPSLRAIVARANSKNSGVPDDIFKLDDLSVLDLSHNQLTECPRELENAKNMLVLNLSHNSIDTIPNQLFINL
TDLLYLDLSENRLSPPQMRRLVHLQTLVLNGNPLLHAQLRQLPAMTALQTLHLRSTQRTQSNLPTSLEGLSNL
ADVDLSCNDLTRVPECLYTLPSLRRLNLSSNQITELSLCIDQWVHVETLNLNRNQLTSLPSAICKLSKLKLYLN
SNKLDLFDGLPSGIGKLTNLEEFMAANNLELVPESLCRCPKLRKLVLNKNHLVTLPEAIHFLTEIEVLDVRENPN
LVMPPKPADRAAEWYNIDFSLQNQLRLAGASPATVAAAAAGSGPKDPMARKMRLRRRKDSAQDDQAKQVLKMS
DVAQEKNNKQEEASADARAPSGKVRWDQGLEKPRLDYSEFFTEDVGQLPGLTIWQIENFVPLVEEAFHGKFYEA
DCYIVLKTFLDDSGSLNWEIYYWIGGEATLDKKACSAIHAVNLRLNYLGAECRTVREEMGDESEEFQVFDNDISY
IEGGTASGFYTVEDTHYVTRMYRVYGKKNIKLEPVPLKGTSLDPRFVFLDRGLDIYVWRGAQATLSSTTKARLF
AEKINKNERKGAETLLVQGQELPEFWEALGGEPSEIKKHVPEDFWPPQPKLYKVGLGLGYLELPQINYKLSVE
HKQRPKVELMPRMRLQSLDTRCVYILDWSDVFIWLGRKSPRLVRAAALKGQELCGMLHRPRHATVSRSLG
TEAQVFAKAFKNWDDVLTVDYTRNAEAVLQSPGLSGKVKRDAEKKDQMKADLTALFLPRQPPMSLAEAEQIMEEW
NEDLDGMEGFVLEGGKFARLPEEEFGHFYTQDCYVFLCRYWVPVEYEEEEKKEDKEEKAEGKEGEEATAEAEKQ
PEEDFQCIVYFWQGREASNMGLTFTFSLQKKFESLFPKGLEVVRMTQQQENPKFLSHFKRKFIIHRGKRKAVQG
AQQPSLYQIRTNGSALCTRCIQINTDSSLLNSEFCFILKVPFESEDNQGIVYAWVGRASDPDEAKLAEDILNTMF
DTSYSKQVINEGEEPENFFWVGIGAQKPYDDDAEYMKHTRLFRCSNEKGYFAVTEKCSDFCQDDLADDDIMLLDN
GQEVYMWVGTQTSQVEIKLSLKACQVYIQHMRSKEHERPRRLRLVRKGNEQHAFTRCFHAWSAFCKALA

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FIGURE 4721A

AGACTGTGGAGCATGGCTTCCCCAATCAGCCCAGCGCCCTGGCCTTCGACCCGGAACCTTCGCATCATGGCCATCG
GCACCAGGTCTGGGGCTGTCAAGATCTATGGTGCACCTGGCGTGGAGTTCACAGGCCTGCACCGGGATGCAGCCA
CTGTACACAGATGCACTTCTTGACCGGCCAGGGCCGCTCCTGTCCCTGCTTGATGACAGCAGTCTGCATCTCT
GGGAGATTGTCCACCATAATGGCTGTGCCACCTGGAAGAAGCACTCAGTTTCCAGCTGCCCAGCCGGCCCGGT
TTGATGGTGGCAGTGCTCCGCTCAGCCTTACCCGAGTCACAGTGGTCCCTGCTGGTGGCTGCCGGCGACATAGCAG
CCCTGGGCACTGAGGGCAGCAGTGTCTTCTTCTGGATGTTACCACCTGACCCTGCTCGAGGGGCAGACGCTTG
CCCCAGGCGAGGTTCTGCGCAGCGTGCCAGACGACTACCGCTGTGGGAAGGCACTGGGCCCCGTGGAGTCACTCC
AGGGACACCTGCGGGACCCACAAAGATTCTCATTTGGCTACAGCCGGGGCCTGCTGGTCATCTGGAACCAGGCCT
CGCAGTGTGTGGACCACATCTTCTTGGGAACCAGCAGCTGGAGAGCCTATGCTGGGGCGTGATAGCAGCACTG
TGGTCAGCTCACACAGCGATGGCAGCTATGCTGTCTGGTCTGTGGATGCCGGCAGCTTCCCAACGCTGCAGCCCA
CGGTAGCCACCACACCTTACGGCCCCCTTCCCTGCAAGGCCATTAAACAAGATTCTGTGGCGGAACCTGTGAATCTG
GGGGCCACTTTATCATCTTCAGCGGTGGCATGCCCGTGCCAGCTATGGTGACCGCCACTGTGTAAGTGTGCTTC
GAGCCGAGACATTGGTGACGCTGGACTTCACTTCCCGCATCATCGACTTCTTCACAGTGACACAGCACAGGCCCG
AGGATGAATTTGATGACCCCAAGGCCCTGGCTGTGCTGCTGGAAGAGGAGCTGGTGGTGTGACCTGCAGACTC
CTGGCTGGCCAGCTGTGCTTCCCCATACCTGGCCCCGCTGCACTCCTCTGCAATCACTTGCTCGGCCCCACGTGG
CCAGTGTCCCGCCAAAGCTGTGGGGCCGCATTGTGAGCGCTGGCGAGCAGCAGAGCCCCCAGCCTGTCTCCAGTG
CCTTGAGCTGGCCCATCACTGGGGGGCGAAACCTGGCCAGGAGCCGTACAGCGAGGGGTGCTGCTGACGGGGCC
ATGAGGACGGCACCCTGAGGTTCTGGGATGCCTCGGGTGTGGCGCTGCGGGCCGCTCTATAAGCTGAGCACAGCTG
GCCTCTTCCAGACAGACTGTGAGCAGCTGACAGCTGGCCAGGCTGCCGAGGACGACTGGCCACCCTTCCGCA
AGGTGGGCTGCTTCGATCCCTACAGTGACGATCCCCGGCTTGGCGTGAGAGGTTGCTCTCTGCAAGTATACAG
CCCAGATGGTGGTGGCTGGCAGTGACGGCCAGGTGCTGGTACTGGAGCTTAGTGATGTGCCGTGGAGCAGGCGG
TCAGCGTGGCCATCATAGACCTCCTCCAGGACCGCGAGGGCTTACATGGAAGGGCCACGAGCGGCTGAGCCAC
GCACGGGGCCGCTGCCCTGGCCTGCTGGCTTCCAGCCCCGTGTCTGGTGCAGTGCCTGCCGCCAGCTGCTGTAA
CCGCTGTACACTCCACACCGAGTGAGCCTCGTGGCTTTTGGACCAGTCACTGGCTTTGGCCTCTTCGACTACC
AGCGCAAGAGCCCTGTGCTGGCCAGGTGCACTCTTACCCCCAATGACTCCCTGGCCATGGAGGGTCCGCTCTCCC
GGGTGAAGTCTCTCAAGAAGTCACTGCGCCAGTCTTTCCGGCGCATTGCAAGAGTCTGTCTCTGGCAAGAAGC
GGGCTGCTAATGCCAGCAGCAAGGAAGCCAATGCACAGCTGGCTGAGCAGGCCTGCCCCACGACGTGGAGATGA
CGCCCGTGACGCGCCGATTGAGCCCCGCTCTGCCGATGACTCCTTGTGCGGTGTCTGTGCGTTGCCATACTTTG
CCGACACATTCTTTCAGATGGGGCCACCACGGGGCCACCATGTGGGTGGCACCAACTCAGGCTCTGTGTTCG
CCTATGCACTGGAGGTGCCGGCAGCAGCAGTGGTGGTGAGAAGCGGCCTGAGCAAGCGGTGGAGGCCGTGCTGG
GCAAGGAGGTGCACTGATGCACCGGGCGCCTGTGGTGGCATTGCCGTGTGGACGGGCGTGGCCGCCCACTGC
CCGAGCCCTACGAGGCCTCACGGGACCTGGCGCAGGCACCTGACATGCAGGGTGGTCACGCTGTGCTCATCGCAT
CTGAGGAGCAGTTCAAGGTGTTCACTGCCCCAAGGTGAGCGCGAAGACCAAGTTCAAGCTGACGGCCCATGAGG
GCTGTCTGTGCGCAAGGTGGCACTGGCCACGTTTGCCAGTGTGGCTGCGAGGACTATGCTGAGACCTGCCTGG
CCTGCCTACCAACCTGGGTGACGTCCACGTCTTCTCGGTGCCCTGGCCTGCGGGCCCCAGGTGCACTATTCTTGCA
TCCGGAAGGAGGACATCAGCGGCATCGCTTCTGTGCTCTTTACGCGCATGGCCAGGGCTTTTACCTGATATCCC
CATCAGAATTTGAACGCTTCTCCCTAAGTGCCCGGAACATCACAGAGCCGCTCTGCTCTCTGGACATTAAGTGGC
CCCGCGATGCCACCCAGGCCAGTTACAGGATCCGAGAGTCAACCAAGCTGAGCCAGGCTAACGGGACCCCAAGCA
TCCTGCTGGCCCCACAGAGCCTTGATGGAAGCCCTGATCCAGCCCACAGCATGGGACCTGACACCCCGAGCCAC
CCGAGGCTGCACTCTCACCATGTCCATCGACTCAGCCACAGTGCTGACACCACGCTGGACACGACAGGGGACG
TCACAGTGGAAGATGTGAAGGATTCTTGGGCTCCTCTGAGGAGTCAGAGAAGAACCTGAGGAACCTGGCAGAAG
ACGAGGCCCCACGCTGTGCCATCCTGATCAAATGAGGAAGGCCAGAATATCCCGACCTCCACCTGCCCTGCTCG
GAGCTGGAGTGCTGGATCCCTGGCACCTGCCTGGCCCCCTAACATAGAACCACGCCTGCTAACCTGTAGGCTCCA
CTGGGACCTGCTGTCTGTCCCGCTGACCCTGGGGCCTGGAGCAGCACCAGCCCCAGGGTGTGGGCTGGGACC
TGGGCCAGAAGTGAAGCCCTCTGCAGGCATTTGGCTGCCCTGGGGGCCCACTGCCTAGGGAAGAGGACAGGTGGG
GCCAGCACCTGTGCCACCTCCCCCCTCCACACACCATCCTTCCCCCTCACTTTGCAGAGTATTTTCTTTT
TTTTTTTTTCTTAAAGACGGAGTCTTGCTCTGTGCGCCAGGCTGGAGTGAGTGGCCCCATCTCTGCTCACTGCA
AGCCCCGCTTCTGGGTTCCCGCCATTCTTCTGCCTCAGCCTCCCAAGTAGCTGGGACTACAGGCGCCACCACC

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FIGURE 4721B

ACGCCCAGCTAATTTTTCTGTATTTTAGTAGAGATGGGGTTTCACCATGTTAGCCAGGATGGTCTCG

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FIGURE 4722

MMKFRFRRQGADPQREKLKQELFAFNKTVEHGFPNQPSALAFDPELRIMAIGTRSGAVKIYGAPGVEFTGLHRDA
ATVTQMHLTGQGRLLSLLDDSSLHLWEIVHHNGCAHLEEALSFQLPSRPGFDGASAPLSLTRVTVLLVAASDI
AALGTEGSSVFFLDVTTLTLLLEGQTLAPGEVLRSPDDYRCGKALGPVESLQGHLRDPTKILIGYSRGLLVIWNQ
ASQCVDHIFLGNQQLES LCWGRDSS TVSSHS DGSYAVWSVDAGSFPTLQPTVATTPYGFPCKAINKILWRNCE
SGGHFIIFS GGM PRASYGDRHCVS VLR AETLVTL DFTSRIIDFFT VHSTRPEDEFDDPQALAVLLEELVVL DLQ
TPGWPAPVAPYLAPLHSSAITCSAHVASVPAKLWARIVSAGEQQSPQPVSSALSWPITGGRNLAQEPSQRGLLLT
GHEDGTVRFWDASGV ALRPLYKLSTAGLFQTDCEHADSLAQAAEDDWPPFRKVGCFDPYSDDPRLGVQKVALCKY
TAQMVVAGTAGQVLVLELS DVPVEQAVSVAIIDLLQDREGFTWKGHERLSPTGPLPWPAGFQPRVLVQCLPPAA
VTAVTLHTEWSLVAFGTSHGFG LFDYQRKSPVLARCTLHPND SLAMEGPLSRVKS LKKS LRQSFRRI RKS RVSGK
KRAANASSKEANAQLAEQACPHDVEMTPVQRRIEPRSADDSLSGVVRCLYFADTF LR DGAHHGPTMWAGTNSGSV
FAYALEVPAAAVGGEKRPEQAVEAVLGKEVQLMHRAPVVAIAVL DGRGRPLPEPYEASRD LAQAPDMQGGHAVLI
ASEEQFKVFTLPKVS AKTKFKLTAHEGCRVRKVALATFASVACEDYAETCLACL TN LGDVHVF SVPGLRPQVHYS
CIRKEDISGIASCVFTRHGQGFYLISPSEFERFSLSARNITEPLCSLDINWPRDATQASYRIRES PKLSQANGTP
SILLAPQSLDGSPDPAHSMGPDTPPEPEAALSPMSIDSATSADTTLDTTGDVTVEDVKDFLGSSESESEKNLRNLA
EDEAHACAILIK

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FIGURE 4723A

GAGGATGCAGAGTGGGAGACCTTAAACCGTCTGATCTGGCTGCTAAAGCGAGTGTCTGACGACCACCCATTAAC
ACCAGCGAGTAGCGTTTGTCTACGGCTTTAGGATAAGAAGCCTGGAATGGTCCCCCTCCGCCGGGAGAAGAAAG
CCAGACGGTCATCCTTCCACCTGGCTGGCAGAGCTACCTGTGCGCTCAGGGCCGGCGGTACTATGTCAACACGAC
CACCAATGAGACCACCTGGGAACGTCCAGCAGTTCTCCTGGGATTCCAGCCAGCCCTGGCTCTCAGAGGAGCTC
TCTGCCTCCAACAGTGAATGGATACCACGCATCAGGGACCCCCAGCGCACCCCTCCAGAGACTGCCCACATGAGTGT
CCGAAAATCCACCGGTGATTCCCAGAACCTGGGATCCTCATCGCCAAGCAAAAAGCAGAGCAAGGAAAAACCCAT
CACAATAAACTGTGTGACGTTCCCTCAGGACACGATGCCGGAACAGCAGCTGCTGAAACCAACCGAGTGGAG
CTACTGCGACTACTTCTGGGCTGATAAGAAGGACCCCCAAGGCAACGGCACCGTGGCTGGGTTTGAAGTACTGCT
CCAGAAACAGCTGAAGGGCAAACAAATGCAGAAGGAAATGTCAGAATTCATCCGGGAAAGGATAAAGATTGAAGA
AGACTATGCGAAGAACTTAGCTAAGCTCTCTCAGAACTCCTTGGCTTCACAGGAGGAAGGCTCCTTGGGAGAGGC
GTGGGCCCAGGTGAAGAAGAGCCTGGCGGACGAAGCAGAAGTTACCTCAAGTTCTCTGCCAAGCTTCACAGCGA
GGTGGAGAAGCCCCTGATGAACCTCCGTGAGAACCTCAAGAAAGACATGAAGAAAGTGCAGACCACCATTTGCCGA
CCTTCGCAAGCAGCTCGCCAGCCGCTATGCCTCGGTGGAGAAGGCCCGGAAAGCCCTCACAGAGCGGCAGAGAGA
CCTGGAGATGAAGACCCAGCAGCTGGAGATCAAGCTGAGCAACAAGACAGAGGAGGACATCAAGAAGGCGCGGAG
AAAGTCCACACAGGCTGGAGACGACCTCATGCGCTGTGTGGATCTCTACAACCAGGCCAGTCCAAATGGTTTGA
AGAGATGGTGACCACCACATTGGAGCTAGAGCGGCTGGAGGTGGAGAGGGTAGAGATGATCCGGCAGCACCTGTG
CCAGTACACGCAGCTGCGGCATGAAACAGACATGTTCAACCAAAGCACAGTCGAGCCCGTGGATCAGCTGCTTCG
AAAAGTGGACCCGGCCAAAGACAGGGAGCTGTGGGTGAGAGCACAAGACGGGCAACATCCGCCCTGTGGACAT
GGAGATCTAGATGGGCCTGTGCAGCTTCGGGGGGTCTGCTGGGXGAXXGGGGGGXCTGGGCTCCCACCATGGG
GCCCATGCCGAGTGGATGCCCCCACCCTCTCTCTGGGCCACTGAGGAGAGGGGAGAGAGCTGGTGATTCCAGA
AGGGTGACCCGGACAGCCTAGCTGGGGGCTCCCCATATTCCAGGCCCAGAAGACAGACCCACAGCCCTGCCCT
TGCTCTGAGGCTGAAGACCCCTGACTCCCATGCTGTGCTTGCCGCTCTGAAACAAACAGAGGCTGGAACCTTG
TGGTCTTTGCCGAGTTTTGTAGGGGTCACTGTACATGCTTGTGCCCTGGAAGCCCCAAGGCTCTTCTCCAGCT
GGCTCCCTTGTCTCCAGGGCTTTGGAGGATCAGGGTAGGGAGGGCTCTGTCTTAAGCCAGGTGTCAGGATCAGA
ATCATGGGTAGAAGGTGCCATTACAGTACAGCGCACCCAGAACTCCTTTCAGGCCCTCTTTATTTTTTTTC
CCATTGCAATCTGGGAGTCCACATCTGGCTTTCTCAGCCACTGTTTCATCACCAGGGGTTTTAGGAGGAAGGCTTG
GCTCCTGTCTTCCCAGACCACCATGCTGGAGAGGTGAGGATGGAACCTACCTCATTTCGCAAAATTAGCCCCAAA
TTGAGCGCTGAATCGTGTCCCATGAGATCAGGCGCCATCTGTAAAGTCTCCTCTGGAATGCCAATCCATCCTTC
CCCCAGCTGTCTTCTCGGGGAGGCCCTGCCCCACCCTGCCAGCCCTTCCCAGTCTCATTAGAGGAAGCTTTCC
AAAGTTCTCAGTTATCAAGACCTCATCCAGCTCGTCCAAAGGCTTCAGGGATGGAACAAACCAGCTCGTCTCAG
AGGCCAGCAAGCTGGGGCCTGTCCGCCACGGTGCCCTGTGCACCTTTGGGCTGCCCTGGCCCCACTCTCCCGGG
CCGCCACCACAGGCTCTTAATGGGGCCGGGTGAGTCTACATGTGAGATGGGTTAGGGCAAGTCTTTGCCATCC
CCCAGATGGCTCTGTCTTCTTGTGTATGGCAGGGCTGGGACTGCTGTCCCTTGTACAGTTTTCTGTCACTGGTGG
GCACTGGACAGGCATAGCAGACTCTCTTGTGGCCACACTAGGTTGTGCGCTTTCAGGCAGTGTCCCGCCACCTTT
GCTTCCCGCTCCTTCTGGACATTCCAGAGCCCTGCACCAACCCTTACTTGGTGTCTGCACCTCCTTTCCCTCTC
TCCATCTTCCAATCCCTGGAAGTCTGGTCTGAGTGTGACTTGGGAAGCTTTCAGTGTGCTGTTTGGCCCAGC
TCATTACTTTCTCCCTTTCTCTACCACAGCAAACACATTCTCCACCATGTGAGTCTAAAGAGTCTAAAGGGGCCG
GGAGAAGCATGAGCGAGGGGAGATTCTAGTCGGGAGCCCATGCCCTGGAATCCATCTTTCTTCATCTTTCCCA
TTGACCACCTTTGGGTTTGACCTGCACATCTGCAGTGGGGCAGAATCAACAAGCACAACCTCACTGGTCTTTTCAG
TCAACGTGCTAGAAACCGATGACTTATTAATCTCTAATTTTTTGGCGCTCTTTTATTGAATGAGAATTGCTTTC
GTATAGTTACATTAGAAAAATGCCTAATACTAAAGTAAACCAACGTTGTCACTTTTCTCTTGTCTTGAAA
CATTGCAACCAAAAAGGTGAGCACAAGGCCCTTACCTACGTGAAGACCTCCTGGTAGGATCTGTCCATGGGATG
GAGAACCCTCTGTCCAGATCTGGGGTTGGGTGATGACACCAGCTACCAATTTAGAAATATTATTCTTGGTTTC
TTTATGAAAAATGGGTGCTAGTGGTAATTGCTTTGTGGCTTAGTAACTACTCTGTGGATGATTTCCAAACATTC
AAAGCCAATAGCCTTGTTATTAACAAGATATTTTGTGACAAATATGGCTCATTGACTTTTCCATTACATCTGAGG
ATTCCAGAGTCTCTGTTTCATCCCTGGGATAGAGTGAAGCCCTTTCGCTCTTCCAGGGTAGCTCAGGTGGCCCA
GTTTGGGCCAGTCCATTTTTGGAGGTCACTCTTTCCCCCTCATCCCTCACCTCCTTCTCTTTACCCCCCTCAC
GTACTTCCTTTCTTTCTTCCCTCTGTTATTTCATTCAAGCAGGTTAAAGCCATTGTGCTAAGATCTAATCTGA

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FIGURE 4723B

GGACACTATAATGGCCCTGTCGTCAGGGAAGCCCGTGATCGCTCGTTTTTCAGGGGTCTTACCGGTCAGCAACCTT
GGCATTGATACATAGGCACTCTACAGAATTTAAGTTTTTCAGAGGTAAGTCTGTGTCTGATTAACTCTGCATTCA
TTCAGCGAATGCTCAAGACAAGCCAGGCATGCTGAGAAGCGGCGCTCTAGTTGTATGTAAGATGGGCATTCCCTCT
GCTCTCCTCTATTCTCCATGTCGACTGAGAAGAGTATAATAAGAACATTGTACCCTCTCCACACTTAACCCCTCTG
GGATTCTTTATTATAATATAAAACCACCGTCGTGAGGCATTTACCTGTTGGATGGAAGGTAGACAGCAACAAGATT
TTAATCACCTGGTCACCAGACCCCTACGGCCCATATCCAATTCGAATTTTCAGAAATTTCTCTGTTTGCTTTAAAT
AACTCTTTACAAATAAGGGTCGGGCACGGTGGCTCACGCCTGTAATCCCAGCTCTTTGGGAGGCCGAGGTGGGCA
GATCACGAGGTGAGGATCGAGACCATCCTGGCTAACATGGTGAAACCCCGTCTCTGCTAAAAATACAAAAAT
TAGCCAGATGTGGTGGTGACACCTGTAGTCCCAACTATTCCGCAGGCTGAGGCAGTAGAATCGCTTGAACCTGG
GAGGCGGAGATTGCAGTGAACCAAGATCGGGCCACTGCACTCCAGCTTGGGTGACAGAGCAAGACTCCATCTCAA
AAAAATTATAAATAACTCTTTGCAAATAGGAAAGTGAAGCTCAAGGGTAACCAAGTGAGGCTATGAAATTGCCAGT
GAATTAAGACCAGGGCTAGAGTCAACAGTCCAGAACCCCTATCCGTATGAACAGGGGCCCGTTCTGGTTGAAAT
CAAGGTTAGGATGCAACTGAGAAAATAAAAGACTGCATTTGGAGAGGCAAGCACGCTATCCGGGTTGTTGTTTT
GTTTTATGTCTTGGTGCTTAGGTGAGGACTTAGCTGGGTTTTATTCAAAGTGGGCGGGTCTGGGCTATTCTTGAGA
ATGTCCCTTCCATTTCTGAGAACAAAGTCAGCCCTTCTACCTGCCTCCACCCAGGAGACTGATGCACAAGATCTG
TTTGTGAAAGCCTGATTTAAAAAGAAAAAAAAAATTCCTTAAGCCAAATGGTGTTCGAAGTTGGTTGCTGTGACA
ACCTCCAGGAAGAGCCACTTGTACCTCTATTCTTTCTAGTGCTTTTCAGTCAGTGGCAACACATAGGCCCTTG
GACCGTGGGGATGGCGGCCCTGAGATTCTGTCTAGTGGGACCACCTGGGCCTCCTTTCTACCTCCACTCAGCACC
CTGTTGGCCAAGGAGAATTTCTGCGGTGGGAGGCAGTGCTCTGCTAGTCAGGATTGATAAACAGCTGGGCACACC
GAAACAGTGTACCAACGAATTCACCAACCAGGGGTTTTCTTTCCCTACCCTTTGTGAAAACCAATCAATTACTAGA
TGAGTGGATGGATGCAGAAAAATCTGGGCTGAGCCAAAGTCCCTTTTGGAATACAAGCCATAACATTCGAAGGA
CATCAGCGACCTTGGCTTGTTTAGGTGATTTTACTTCCAGCTGCAGGTAGTCTTGACAAGGAGTGTTTAAACAGA
AGGCTCAAGATGCATTCTTGTGTAGGTGGAGAGAGCACTTCTAATGTTAAGTGGGTACAGATCAGCTGCCCC
CCCACGTAGCCTGGACATCGTCTTATCCCCATAATCTTGGCCTCCCTACAAGGCCATCGCCACCACCTTTTCC
CAGGTTTTATTGAGGTATGATTGACATCCAGTAAATTCACCCTTTGGAAATATACAGCTCTGTGAATTTTGACAA
ATTTAGTGTCTTGTGACCATCACCAAGATCAACCTGTTTTTAACCCTCCAAAAATTCCTTCTCTGCCCTCTT
TCCCTGGCAACCTTGATTGATTATCTGATCCTATAATTTTGCTTTTCTAGAATGTCAATAAATGGAGTCACAC
TGATGTGCGCTTTTGTGAGTCTGGCATCTTTCCCTCAGCTTAATGCTTTTGTGATCATTATGATGTGTGTGGT
TTGTTCTTTCTCCTTGCCGGGAAGTATTTTCAATGATGGGCGTACTACTCTGCTTCTTTATTTTACACTGAGCC
TTTCGCCCTGGAAGTTCTTGCGCCAGGGTCTTCAACTTGTTTGACGACCACCTCCAGCTTGCTGCTTCTCTCAG
TTCCCCAGGCTCCTCCTCCAAATGCCAGCTGTGCCACAAGCTGTTCTTAGGGCTCACACTCGCTTTTGGCGCG
TGGTGGGTTTTTGGTAGTGAGAAAGAATCCAGGGATGGGAGGGGAAGGGACGGATGGGTGCTCAATTGCTGCTC
ACGTCTGCTGCAACCTGAAGCTTGCATCTCAGCCAGCAGATCTGCTCCCTTCTGGGACCCAGGCTTCAGTGTCAC
ACGGTCTTGGCTATGTATTGGGCGTTGGAGGCTTTGAAAGGCGAGCAGAAGCAGCATGGACAAGAAGGCTGGGG
CTGGCCCTGGGGCTCATCATGATGCTTTTCTGGATCTGTTGCTTCTATCTGCAAGCTGAGGGTGTGTTCTAGAT
GAGTGTCTCAGGCCACCGGCAACTGCATGTACCTCCTCCCTTTCTCATTTCGAATGATGTACCTGTACACGTGT
TCATGCTGTGTCTGGCTCTCATCTGCACAATCGTGATAGAATTGCCTCAAGTCTGGTGAGAGAGATGCCGTGG
TACTTTTCCATTTAGATTCAAATGGAGCTAAAATTAAGAGTTTTATGAGCTGTTAAGAATGAGGTAGTTTCTCCT
AGGACCCCCCAAAGACAGTGCAAGTAATGACCGTTTGGATCTCATTGCTCGATCTTTGATAGTATGTTCTGGAGT
CTACTCCCCAGGAGCCAGGACAGGCGTGAAGATGGAGTCTTGTGCGAGCTGGAGCCTTGCTAGCTGGTGATCA
CACAGCCTGGCCTGTACCTGCACCCCACTGGATGGTGGTACATGGTGGCAGGGACAGGACCACACCCAGTTAAGG
CCAGACCAGGCTGAGTGTGACCCCTGAGGTAAACACTCCACTAAGCTGTGTCTTGTTCATGCCCCCTGCTCAGTG
AAAGGTGAGTCCCAGACACAGTTGGGTACCTCTCTATGCCAACCAGAGACATTTCTGGATCCAGGCCAGGTGAAG
ATTAGGGCCAGGAAGCCTGAGCCCCCGGGGCTCAAGGTAGGGAGCCGAAGAGGCTGCCAGGACTCTGCTGGGTT
GAAATTTGCCGGGGAGGACTCTTGTCTCCCCCTCAGGAGTATTTTTGTTGAGGCTTTTCTGGAGGTGAAGAAGCA
ATTCCCATTCAGCAGGTTAGAGCGAGAATCAGACAGAGGGCAAAAACCAATTCGCTTCTCCCCACGTTCTAAAT
GCTGGGGCATGGCTGTGAGGAGGCTTCTGGGAGGTGTCTCTGGGGTGGGGTGAAGTTGGGGCGATGGCCTTT
GGAGATTGCGTGTGGTGTTCAGGACTGTTCTTGGTGTGAGGGAACTTTAGTGGGATTGCAGTGGAATGTAA

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FIGURE 4723C

GGTCAGGGGCACGTGGGTGCTCTCTCGGGGTGGGGTGACTGGGAGACCTAGAGGGAAAGCCTGCTATGCAGGGGGA
GAGCACAGGACTGGCCCTGCTCTGCGGCCTCCTTTGTCCCATACCTGAAGTTAAGTCACATCCCCTGTCGGGGAC
CTCCGTGCACTCATCTGTCAAGTGGGGGCGCTTCCCTTCCAGCATCACCTGCAGCAGACGGGCTCTCGGGAGTCG
TGGGTTCCAGGCAGCTGTGTGGACCCAGGGACAGACATTCAAAGGGACGCCAGCCATCCTTAGTGACAGGGGCCC
CAACTTAGCATCCCCTTCCCTTCCGTTAGGAAGGAGATGACCGGAAGCAACCCCTTCACAGACACGAGCACATCGG
CAAACCCCTATGAAAGTGGAATTTTCTAACAAAATAAACTTGCTTGTTTGATCTGTTTTCTGTAACTTTTGCTAAA
TACTTTATACATTTTTTCATGTTAAAGAGCCGTGTCTCCCGCCAGCACTCCTCACCCCGGTATGAATGTGTTTCCT
CCACATTGTATATCCTTCCACCCTCTGGCTGCCTAGATCAGTAAATAAAATTGATGTAATATAATTTATAAGTAA
CACTGTTGAAACCCTGATCCCAGTGGAGGCTGTAACCCACCTGCCCCCGCACCACCCCTGACCCCTGTTACCG
CATTTGTGTGTATTAATGCTGAAGAATTAAATGTTTAAAGAGTTTAAATTTTGAAGGC GTTTGCTATATACAGTT
GTCCTGCATTATTATAAAGAGTTTTTCAGGAAGTT

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FIGURE 4724

TCTTCCACAGGAGGCCTACACGCCGCCGCTTGTGCTGCTGCCATGTCTCTAGTGATCCCTGAAAAGTTCCAGCAT
ATTTTGCAGTACTCAACACCAACATCGATGGGCGGTGGAAAATAGCCTTTGCCATCACTGCCATTAAGGGTGTG
GGCCGAAGATATGCTCATGTGGTATTGAGGAAAGCAGACATTGACCTCACCAAGAGGGCGGGAGAGCTCATTGAG
GATGAGGTGGAACGTGTGGTCACCATTATGCAGAATCCACGCCAGTACAAGATCCCCGACTGGTTTTTGAACAGA
CAGAAGGATGTAAAGGATGGAAAATATAACCAGGTCCTGGCCAACGGTCTGGACAACGAGCTCCGTGAAGACCTG
GAGCGACTGAAGAATATTCGGGCCCATAGAGGGCTGAGTCACTTCTGGGGCCTTCGTGTCCGAGGCCAGCACACC
AAGACCACTGGCCGCTGTGGCCGCACCGTAGGTGTGTCCAAGAAGAAATAAGTCTGTAGGCCTTGTTTGTTAATA
AATAGTTTATATACC

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FIGURE 4725

GCTGTCCTGAGCCTGAGTACTCTAGCTGCCTTGTCGCCATCGCATCTGGCTGCCATCCAGCGCCAGCACACAGTA
 ATGAGTGGCCGAGCTTCTCTGGGAGGGAGGAAACAGTTAAAATCTTGCAGCAGCTGCAATCATCTAGGCGTGGT
 TCTCTTGCTGACTTGGGCTGCACAGATCCTGGGCCAAGGGACAGAAGAAAGACAGCCTAGGAGCAGAGCCTCCC
 AGATGGCTGAGTTGGATCTAATGGCTCCAGGGCCACTGCCCAGGGCCACTGCTCAGCCCCCAGCCCCCTCTCAGCC
 CAGACTCTGGGTCACCCAGCCCAGATTCTGGGTGAGCCAGCCCAGTGGGAAGAAGAGGACGTGGGCTCCTCGGAGA
 AGCTTGGCAGGGAGACGGAGGAACAGGACAGCGACTCTGCAGAGCAGGGGGATCCTGCTGGTGAGGGGAAAGAGG
 TCCTGTGTGACTTCTGCCTTGATGACACCAGAAGAGTGAAGGCAGTGAAGTCCTGTCTAACCTGCATGGTGAATT
 ACTGTGAAGAGCACTTGACGCCGCATCAGGTGAACATCAAAGTCAAAGCCACCTGCTGACCGAGCCAGTGAAGG
 ACCACAACCTGGCGATACTGCCCTGCCACCACAGCCCAGTGTCTGCTTTCTGCTGCCCTGATCAGCAGTGCATCT
 GCCAGGACTGTTGCCAGGAGCACAGTGGCCACACCATAGTCTCCCTGGATGCAGCCCGCAGGGACAAGGAGGCTG
 AACTCCAGTGCACCCAGTTAGACTTGGAGCGGAACTCAAGTTGAATGAAAATGCCATCTCCAGGCTCCAGGCTA
 ACCAAAAGTCTGTTCTGGTGTCGGTGTCAGAGGTCAAAGCGGTGGCTGAAATGCAGTTTGGGGAACTCCTTGCTG
 CTGTGAGGAAGGCCCAGGCCAATGTGATGCTCTTCTTAGAGGAGAAGGAGCAAGCTGCGCTGAGCCAGGCCAACG
 GTATCAAGGCCACCTGGAGTACAGGAGTGCCGAGATGGAGAAGAGCAAGCAGGAGCTGGAGAGGATGGCGGCCA
 TCAGCAACACTGTCCAGTTCTTGGAGGAGTACTGCAAGTTAAGAACAAGTGAAGACATCACCTTCCCTAGTGT
 ACGTAGGGCTGAAGGATAAACTCTCGGGCATCCGCAAAGTTATCACGGAATCCACTGTACACTTAATCCAGTTGC
 TGGAGAACTATAAGAAAAAGCTCCAGGAGTTTCCAAGGAAGAGGAGTATGACATCAGAACTCAAGTGTCTGCCG
 TTGTTTCAGCGCAAATATTGGACTTCCAAACCTGAGCCCAGCACCAGGGAACAGTTCTCCAATATGCGTATGACA
 TCACGTTTGACCCGGACACAGCACACAAGTATCTCCGGCTGCAGGAGGAGAACCAGGTCACCAACACCACGC
 CCTGGGAGCATCCCTACCCGGACCTCCCCAGCAGGTTCTGCACTGGCGGCAGGTGCTGTCCCAGCAGAGTCTGT
 ACCTGCACAGGTACTATTTTGAGGTGGAGATCTTCGGGGCAGGCACCTATGTTGGCCTGACCTGCAAAGGCATCG
 ACCGGAAGGGGAGGAGCGCAACAGTTGCATTTCCGGAACAACCTCTCCTGGAGCCTCCAATGGAACGGGAAGG
 AGTTACGGGCTGGTACAGTGACATGGAGACCCCACTCAAAGCTGGCCCTTTCCGGAGGCTCGGGGTCTATATCG
 ACTTCCCGGGAGGGATCCTTTCTTCTATGGCGTAGAGTATGATACCATGACTCTGGTTTACAAGTTTGCCTGCA
 AATTTTCAGAACCAGTCTATGCTGCCCTTCTGGCTTTCCAAGAAGGAAAACGCCATCCGGATTGTAGATCTGGGAG
 AGGAACCCGAGAAGCCAGCACCGTCTTGGGGGTGACTGCTCCCTAGACTCCAGGAGCCATATCCCAGACCTTTG
 CCAGCTACAGTGATGGGATTTGCATTTTAGGGTGATTTGTGGGCAGAAATAACTGCTGATGGTAGCTGGCTTTTG
 AAATCCTATGGGGTCTCTGAATGAAAACATTCTCCAGCTGCTCTCTTTTGCTCCATATGGTGCTGTTCTCTATGT
 GTTTGCAGTAATTCTTTTTTTTTTTTTTTTGGAGACGGAGTCTCGCACTGTTGCCAGGCTGGAGAGCAGTGGCGGA
 TCTTGGCTCACTGCAAGCTCCGCCTCCCGAGTTCAAGCAATTCTCCTGCCCTCAGCCTCCCGAGTAGCTGGGATTA
 CAGGTGCCTGCCACCACACCCAGCTAATGTTTTGTATTTTGTAGAGATGGGGTTTACCATGTTGGCCAGGCA
 GATCTCAAACCTCTGACCTCGTGATGCACCCACCTCGGCCTCCCAAAGTGTGGGATTACATGCGTGAGCCACTG
 CGCCCTGCCTGTTTGTAGTAATTTTGGACCAAAATCTCCCTCATCTTCTAGTGCCATTCTCCTCTCTGTTTCA
 GTAAATGTCACACTGTGCCAGAAATGGATGACCAGGAACCTTAAAGAGTGGCTGAAAAGATTGCAGAGTTATCAT
 AATAAATTGCTAACTTGCGT

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FIGURE 4726

MAELDLMAPGGLPRATAQPPAPLSPDSGSPSPDSGSASPVEEEDVGSSEKLGRETEEQDSDSAEQGDPAGEGKEV
LCDFCCLDDTRRVKAVKSCLTCMVNYCEEHLQPHQVNIKLQSHLLTEPVKDHNRWRYCPAHHSPLSAFCCPDQQCIC
QDCCQEHSHTIVSLDAARRDKEAELQCTQLDLERKLKLNNENAI SRLQANQKSVLVSVEVKAVAEMQFGELLAA
VRKAQANVMLFLEEKEQAALSQANGIKAHLEYRSAEMEKSQELERMAAISNTVQFLEEYCKFKNTEDITFPSVY
VGLKDKLSGIRKVITESTVHLIQLLENYKKKLQEFSEEEYDIRTQVSAVVQRKYWTSKPEPSTREQFLQYAYDI
TFDPDTAHKYLRLQEENRKVTNTTPWEHPYPDLPSRFLHWRQVLSQQSLYLHRYFFEVEIFGAGTYVGLTCKGID
RKGEERNSCISGNFWSLQWNGKEFTAWYSMETPLKAGPFRR LGVYIDFPGGILSFYGVEYDTMTLVHKFACK
FSEPVYAAFWSKKENAIRIVDLGEEPEKPAPSLGVTAP

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FIGURE 4727

GGCGGACCGAAGAACGCAGGAAGGGGGCCGGGGGGACCCGCCCCCGGCCGGCCGCAGCCATGAACTCCAACGTGG
AGAAACTGCCCCCGCACATCATCCGCCTGGTGTACAAGGAGGTGACGACACTGACCGCAGACCCACCCGATGGCA
TCAAGGTCTTTCCCAACGAGGAGGACCTCACCGACCTCCAGGTACCATCGAGGGCCCTGAAGGGACCCCATATG
CTGGAGGTCTGTTCCGCATGAAACTCCTGCTGGGGAAGGACTTCCCTGCCTCCCCACCCAAGGGCTACTTCCTGA
CCAAGATCTTCCACCCGAACGTGGGCGCCAATGGCGAGATCTGCGTCAACGTGCTCAAGAGGGACTGGACGGCTG
AGCTGGGCATCCGACACGTACTGCTGACCATCAGGTGCCTGCTGATCCACCCTAACCCCGAGTCTGCACTCAACG
AGGAGGCGGGCCGCCTGCTCTTGGAGAACTCCGAGGAGTATGCGGCTCGGGCCCGTCTGCTCACAGAGATCCACG
GGGGCGCCGGCGGGCCCAGCGGCAGGGCCGAAGCCGGGCGGGCCCTGGCCAGTGGCACTGCAGCTTCCTCCACCG
ACCCTGGGGCCCCAGGGGGCCTGGGAGGGGCTGAGGGTCCCATGGCCAAGAAGCATGCTGGCGAGCGCGATAAGA
AGCTGGCGGCCAAGAAAAAGACGGACAAGAAGCGGGCGCTGCGGCGGCTGTAGTGGGCTCTCTTCCTCCTCCAC
CGTGACCCCAACCTCTCCTGTCCCTCCCTCCAACCTCTGTCTCTAAGTTATTTAAATTATGGCTGGGGTCGGGGA
GGGTACAGGGGGCACTGGGACCTGGATTTGTTTTTCTAAATAAAGTTGGAAAAGCA

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FIGURE 4728

GGGCGGTTGGCTTTGTTGGGTGAGCTTGTTTGTGTCCCTGTGGGTGGACGTGGTTGGTGATTGGCAGGATCCTGG
TATCCGCTAACAGGTCAAAATGCAGATCTTCGTGAAAACCCCTTACCGGCAAGACCATCACCTTGAGGTGGAGCC
CAGTGACACCATCGAAAATGTGAAGGCCAAGATCCAGGATAAGGAAGGCATTCCCCCGACCAGCAGAGGCTCAT
CTTTGCAGGCAAGCAGCTGGAAGATGGCCGTA CTCTTTCTGACTACAACATCCAGAAGGAGTCGACCCTGCACCT
GGTCCTGCGTCTGAGAGGTGGTATGCAGATCTTCGTGAAGACCCTGACCGGCAAGACCATCACCTTGGAAAGTGGA
GCCCAGTGACACCATCGAAAATGTGAAGGCCAAGATCCAGGATAAAGAAGGCATCCCTCCCGACCAGCAGAGGCT
CATCTTTGCAGGCAAGCAGCTGGAAGATGGCCGCACTCTTTCTGACTACAACATCCAGAAGGAGTCGACCCTGCA
CCTGGTCCTGCGTCTGAGAGGTGGTATGCAGATCTTCGTGAAGACCCTGACCGGCAAGACCATCACTCTGGAAGT
GGAGCCCAGTGACACCATCGAAAATGTGAAGGCCAAGATCCAAGATAAAGAAGGCATCCCTCCCGACCAGCAGAG
GCTCATCTTTGCAGGCAAGCAGCTGGAAGATGGCCGCACTCTTTCTGACTACAACATCCAGAAGGAGTCGACCCT
GCACCTGGTCCTGCGCCTGAGGGGTGGCTGTTAATTCTTCAGTCATGGCATTGCGAGTGCCCAGTGATGGCATT
CTCTGCACTATAGCCATTTGCCCAACTTAAGTTTAGAAATTACAAGTTTCAGTAATAGCTGAACCTGTTCAAAA
TGTTAATAAAGGTTTCGTTGCATGGTA

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FIGURE 4729

MQIFVKTLTGKTITLEVEPSDTIENVKAKIQDKEGIPPDQQR LIFAGKQLEDGRTLSDYNIQKESTLHLVLR LRG
GMQIFVKTLTGKTITLEVEPSDTIENVKAKIQDKEGIPPDQQR LIFAGKQLEDGRTLSDYNIQKESTLHLVLR LRG
GGMQIFVKTLTGKTITLEVEPSDTIENVKAKIQDKEGIPPDQQR LIFAGKQLEDGRTLSDYNIQKESTLHLVLR LRG
RGGC

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FIGURE 4730

AGGTAGGCTCTCTAGGAATCTGGGAGTAGTAGCTGGGGGGCAAGAGCAAATAAAGAGCTCGAGCTTCTGTGGTCT
CTGGGGAGATGTTCCCGGGAAGCCTGTCTAGAGGGCGGAGGGCAGCTGTTGAGATGGCGTGGCTCCCCGGCTCCT
GCGCCCGCGTGGCTTTCGCGGCGGGCGCTGCGGCCCCGGTATTGGACAGCCTGGCAGGGCAGCGCGGGGCCGAATC
CGGCTGCCGTGGCTGAGGCTCATGGATCACTCTTTTGTGGTAGGGCCACATCTGCCAGAGCCTGGAGTCTGCGAA
GGCCGGGACCCGGTTCCCCGGCCACAGTGGGGGTGTGCAAACCCGAGAGAACTGGATTGCGTACCCACTGCAGA
GTGCTGAAGACGGGGTAGCCACGAGGTTGCAAATTCGTGAAGAATCAGCATCATGTTTGGCAGCTGAGTATTGGA
GCCAGGAGCCTGCCATGAGGTTTTGAGAACAGAGTGCTGTTTTAGAGCTGGCAGCAGCATCTCAGCCCAAGAGAA
GGTTATATTTCCAGAGGATGTCAGTCCCAAGGACCAGTAGCTGCCATCAGTTTGGATTCTGAAAATAACTGGCA
TCAACACTGGGTGTAGAAACATGCTTGCTTATGTATCAGAGGACATGCTCAGCAGATCCAAGAGATATATTGG
CAACTTTTTCTAGAAAAGGCACATTGGGTATCATTACATTCTTGAGT

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FIGURE 4731

MFPGSLSRGRRRAVEMAWLPGSCARVAFAGAARYWTAWQGSAGPNPAAVAEAGSLFCGRATSARAWSLRRPG
PGSPAHS GGVTRENWIA YPLQSAEDGVATRLQIREESASCLAAEYWSQEPAMRF

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FIGURE 4732

TCCAGCCCTTCTCCTGTGTGCCTGCCTCCTGCCGCCGCCACC**ATG**ACCACCTCCATCCGCCAGTTACCTCCTCC
AGCTCCATCAAGGGCTCCTCTGGCCTGGGGGGCGGCTCGTCCCGCACCTCCTGCCAGCTGTCTGGCGGCCCTGGGT
GCCGGCTCCTGCAGGCCGGGATCTGCTGGTGGCCTGGGCAGCGCCCTCGGGGGTAGCAGCTACTCCAGCTGCTAC
AGCTTTGGCTCTGGCGGTGGCTATGGCAGCAGCAGCTTTGAGGGCGTTGATGGGCTGCTGGTTCGGAGGTGAGAAG
GCCACCATGCAGAACCTCAATGACCGCCTGGCCTCCTACCTGGACAAGGTGCGTGCCCTGGAGGAGGCCGACACT
GAGCTGGAGGTAAAGATCCGTGACTGGTACCAGAGGCAGGCCCCGGGGCCCCGCCGTGACTACAGCCAGTACTAC
AGGATAATCGAGGAGCTGCAGAACAAAGATCCTCACAGCCACCGTGGACAATGCCAACATCCTGCTACATATTGAC
AATGCCCATCTGGCTGCTGCTGACTTCCGCACCAAGTTTGAGACAGAGCAGGCCCTGTGCCTGAGTGTGGAGGCC
GACATCAATGGCCCGTGCAGGGTGTGGATGAGCTGACCCTGGCCAGAGCCGACCTGGAGATGCACATTGAGAAC
CTCAAGGAGGAGCTGGCCTACCTGAAGAAGAACCACGAGGAGGAGATGAACGCCCGCGAGGCCAGGTGGGCGGT
GAGATCAATGTGGAGATGGGCGCTGCCCCAGGTGTGGACCTGAGCCGCATCCTGAATGAGATGCGTGAGCAGTAT
GAGAAGATGGCAGAGAAGAACCGCAAGGATGCCGAGGATTGGTTCTTCAGCAAGACAGAGGAGCTGAACCGCGAG
GTGGCTACCAACAGTGAGCTGGTCCAGAGCGGCAAGAGCGAGATTTCGGAGCTCCGGTGCACCATGCAGGCCTTG
GAGATCGAGCTGCAGTCCCAGCTCAGCATGAAAGCATCCCTGGAGGGCAACCTGGCGGAGACAGAGAACCGCTAC
TGCATGCAGCTGTCCAGATCCAGGGGCTGATCGGCAGTGTGGAGGAGCGGCTGGCCAGCTTCTCTGCGAGATG
GAGCAGCAGAACCAGGAGTACAAGATCCTCCTGGACATGAAGATGCGGCTGGAGCTGGAGATCACCACCTACCAC
CGCCTGCTGGAGGGCGAGGATGCCCACCTGACTCAGTACAAGAAAGAACCGGTGACCACCTGTCAGGTGCCTACC
ATTGTGGAAGAGGTCCAGGATGGTAAGGTCACTCTCCTCCCGCAGCAGGTCCGCCAGACCACCCGCT**TGAG**CACCTC
AGCTTTCTGGCCGGCCCCCAGGAGGCAGGGAGGCAGCGGTCCCATCTGCCCCGCGGTCTCCGGCCTCTCCACC
CTCAGCCCCCTGCTTCAGTCCCTTCCCCATGCTTCCCTGCGTGATGACAATAAAGCTCGTTGACTCAGCT

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FIGURE 4733

MTTSIRQFTSSSSIKGSSGLGGSSRTSCQLSGGLGAGSCRPGSAGGLGSALGGSSYSSCYSGGGGYGSSSFE
GVDGLLVGGEKATMQNLNDRLASYLDKVRAL EEADTELEV KIRDWYQRQAPGPARDYSQYYRIIEELQNKILTAT
VDNANILLHIDNAHLAAADFRTKFETE QALCLSVEADINGPCRVLDELTLARADLEMHIENLKEELAYLKKNHEE
EMNAPRGQVGGEINVEMGAAPGVDLSRILNEMREQYEKMAEKNRKDAEDWFFSKTEELNREVATNSELVQSGKSE
ISELRCTMQALEIELQSQLSMKASLEGNLAETENRYCMQLSQIQGLIGSVEERLAQLLCEMEQQNQEYKILLDMK
MRLELEITTYHRLLEGEDAHLTQYKKEPVTTQVPTIVEEVQDGKVISSREQVRQTTR

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FIGURE 4734

CTTTCCGCTCGGCTGTTTTCTGCTCAGGAGCCGCGAGGGCCGTAGGCAGCCATGACGCCCAGCCGGAATGGCATG
GTCTTGAAGCCCCACTTCCACAAGGACTGGCAGCGGCGCGTGGCCACGTGGTTCAACCAGCCGGCCCCGGAAGATC
CGCAGACGTAAGGCCCGGCAAGCCAAGGCGCGCCGCATCGCCCCGCGCCCCGCGTCGGGGCCCCATCCGGCCCCATC
GTGTGCTGCCCCACGGTTCGGTACCACACGAAGGTGCGCGCCGGCCGCGGCTTCAATCTGGAGGAGCTCAGGGTG
GCCGGCATTACACAAGAAGGTGGCCCCGGACCATCGGCATTTCTGTGGATCCGAGGAGGCGGAACAAGTCCACGGAG
TCCCTGCAGGCGAACGTGCAGCGGCTGAAGGAGTACCGCTCCAAACTCATCCTCTTCCCCAGGAAGCCCTCGGCC
CCCAAGAAGGGAGACAGTTCTGCTGAAGAACTGAAACTGGCCACCCAGCTGACCGGACCGGTCATGCCCATCCGG
AATGTCTATAAGAAGGAGAAAAGCTCGAGTGATCACTGAGGAAGAGAAGAATTTCAAAGCCTTCGCTAGTCTCCGT
ATGGCCCGTGCCAACGCCCCGGCTCTTCGGCATAACGGGCAAAAAGAGCCAAGGAAGCCGCGAGAACAGGATGTTGAA
AAGAAAAAATAAAGCCCTCCTGGGGACTTGGAAT

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FIGURE 4735

GAATGGCATGGTCTTGAAGCCCCACTTCCACAAGGACTGGCAGCGGCGCGTGGCCACGTGGTTCAACCAGCCGGC
CCGGAAGATCCGCAGACGTAAGGCCCCGCAAGCCAAGGCGCGCCGCATCGCCCCGCGCCCCGCGTCGGGGCCCCAT
CCGGCCCATCGTGTGCTGCCCCACGGTTCGGTACCACACGAAGGTGCGCGCCGGCCGCGGCTTCAATCTGGAGGA
GCTCAGGGTGGCCGGCATTACAAGAAGGTGGCCCGGACCATCGGCATTTCTGTGGATCCGAGGAGGCGGAACCA
AACTCATCCTCTTCCCCAGGAAGCCCTCGGCCCCCAAGAAGGGAGACAGTTCTGCTGAAGAAGTGAAGTGGCCA
CCCAGCTGACCGGACCGGTCATGCCCATCCGGAATGTCTATAAGAAGGAGAAAGCTCGAGTGATCACTGAGGAAG
AGAAGAATTTCAAAGCCTTCGCTAGTCTCCGTATGGCCCGTGCCAACGCCCGGCTCTTCGGCATAAC

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FIGURE 4736

MAPSRNGMVLKPHFHKDWQRRVATWFNQPARKIRRRKGPASQGAPHRSAPRVGSHPAHRALPHGSVPHEGARRPR
LQPGGAPGWPAFTRRWPGPSAFLWQTHPLPQEALGPEGRQFC

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FIGURE 4737

GTAGAGTGC GCGACGCTTTTGGCGACCCGACCTCTGGCTAACCTACCCCCGGAGCCATGGCCTCTGCTGGGGTGG
CAGCCGGGCGACAGGCGGAGGATGTATTGCCGCCAACGTCCGACCAGCCGCTGCCTGACACCAAGCCGCTGCCGC
CTCCTCAGCCGCCGCCGGTCCCTGCGCCTCAACCGCAGCAGTCGCCGGCGCCACGGCCTCAGTCACCTGCCCGCG
CGAGGGAGGAAGAGAACTACTCCTTTTTTACCTTTGGTTTACACAACATCATCAAATGCATGGACAAGGACAGCCCCAG
AGGTCCACCAGGACCTGAACGCCCTCAAAAGCAAGTTCCAGGAGATGCGCAAGCTCATCAGCACCATGCCCGGCA
TCCACCTGAGCCCCGAACAGCAGCAGCAGCAGCTGCAGAGCCTCCGGGAGCAAGTCAGGACCAAGAATGAGCTTC
TGCAAAAGTACAAGAGCCTCTGCATGTTTGAAATCCCCAAGGAGTAGAGTGAGGCTGACTTCCTTAGAAAGAGGG
GGAAGCCAATGGCCTGTCTCCCCACTACCATCCCCAAACGCTCCTTGGGGCGTGGTTCTGTGGACCCCAGCTCA
GCTCGTCAAGCTGCAGGGGCGGGGCTCCTGTGTCTGCTGCGCGCGCTTCGCCTGTGCGGGAGCCAGCGCAGAGCTT
GGCTGCGCCGGGGGTTCTCGTGTAGATCCATATGTCTAGATGCATAATAACTGGAGTGCTGTGGTGGAAGTC
AGAATGCTCCTGGAGGCTGCAGAGGGGGTGGAGGACTCTCCCCTGCCTCTGGGGAGGGGGCCATCTGCTGCGCCC
GGCCCCACTGACAGATCTGAAGAGCACAGTAGGAAGGGAGGCGGCTCCTCTTTGCTTCCTTCCCTCTCTCTCCTC
CCACCCCCATAGGATCAGTGTGTACCAGGTACACATTGTTTCTGTAAACAGCAGCTTCTTGAAACATTGTCATAG
AATTCAGTGACGAATTAAGCCTGCACTCATATGGCATAGAATTGTGAGAGAATGTTTTGAAAGGCCAGAGGGTG
GCCTTTTTCCCCAAACAGTTTGGTTCCCTTTATGTTTGAGCCAGTGAAGGGAACACGCTTTGGGGGCTTCAGCC
TAGAGCCCTGCCAGGCAGCCCCCTGGCTCCAGGTTCCCTGCCTCCTAGCGCTCTCCTCGCCTTCAGCTCTTGCTCC
CTTCTCGTTTCATCACCCCTCAGTCAGTGCCCAAGAGTGGCCAAACCGCTTCACATCTGCAGTGCTTCCCCAGGGT
TGACAAGGGGCGCTCCTTTCCACACAGGCCAGAAGAGGTCTTCAGGCGAACCAGCCTTCCCCCTTCTGGCATTTC
AGATTCCCCTTGCTCTGGTTAAAAGGTCTTTCCCTCGTGGCCTTTGCACTTGCGGCAGCAACGTGTACTACACTG
CAGAAGGGTTCAGTATGCACCTTGTGTTGAGAGAGAGGCAACCCTGGGGGCCAGTTCAGGTGGTCCCCAACCATA
GGCTAGGTCTGAAAGTTACACAGCCAAGTTTGAGCTCTTAAAAGTTGATGAACAGCCTCATTTCGCCAGCTTCCC
TGATTCTTCCAGATGGGACGTTTTATTTGTGTGCTCTCCCTTGACTGTCAGATTGAAGTAAGAGCAGTTCTCTC
CGTTGCCTCTCGAGGAGGAGGTGCGAAGTCCTGGAGTATTGTTTGGGTCTCGGAATGGGCGCATAACCTGCGCTG
ACCAGTTTAGGGGCTTAGCAGATGCCTGCCAGCTGACCTCGTTGGCAGGAGGGTTGGGTGGAGATGTTTTAGCA
GAGCTTCCATTAGTGTAGACCTGTAGCCACCTGTCAGAAGGTGGGTGGCATATTGGGGACCTGGGAATGTGTGAA
GGAGGAGATCAAATTTAGTGCCCTTTGGACAGAAAAGAAGGCTCTGGATTTAAGCGGGTGGTCACCTGTGAGACC
AGGTCTACCTTGGGACTGTTATTTAACTGAATCAGTTATTTCTTGAAATTTACAGTAGTGGGTGGGCTGTTT
TAAGGCTCTGACAGATACCACGAAACATGAAGCACGTGGAACATAAGACCCCCGGGGTCTTTCTGAGTGCAAGG
CTGAAATGGACAAGGGCTCCTCACGGGGGTGGAGGGAGCCGGAGCCTGCCTTGTTCTCTTTTGGACTTGAGTGTGAC
ATTTTTCAAACACATAATTAAAGGACTTATGCTCTGCTGTCTCAGG

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FIGURE 4738

MASAGVAAGRQAEDVLPPTSDQPLPDTKPLPPPQPPVPAPQPQQSPAPRPQSPARAREEENYSFLPLVHNIKC
MDKDSPEVHQDLNALKSKFQEMRKLISTMPGIHLSPEQQQQQLQSLREQVRTKNELLQKYKSLCMFEIPKE

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FIGURE 4739

GGGGCGACCCGACCTCTGGCTAACCTACCCCCGGAGCCATGGCCTCTGCTGGGGTGGCAGCCGGGCGACAGGCGG
AGGATGTATTGCCGCCAACGTCCGACCAGCCGCTGCCTGACACCAAGCCGCTGCCGCCTCCTCAGCCGCCGCCGG
TCCCTGCGCCTCAACCGCAGCAGTCGCCGGCGCCACGGCCTCAGTCACCTGCCCCGCGCAGGGGAGGAAGAGAACT
ACTCCTTTTTTACCTTTGGTTTACAACATCATCAAATGGTTAAGAACCTAGGAGAGGACCAGGCCCCATACTCCCTC
CAGCTTCTCCTCTCAGCCGTTTCAGAGCTGCAAGAGGCCTTGGCGCTCTGGGGCACGCCCCCGTTTCACAGATGG
GGAAACTCAGACCCAGAGCGGGAAGAGGCCTTTCCCAAGACCACAGAGACATTCCATGAGTTAAGCAAACGATT
GAGCCTCGAGAGGTGCGATATCCTTAAGAATGAAGCCAGCTTAGAGACTAAATGCAGACTCTTGTCCAGCGGCTC
AAATGTTTCATCCCAGCGATCTTGAGCAAATTAAATCTCTTTAAGCCGCAAAAAAAAAAAAAAAAAAAAAA
AAA

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FIGURE 4740

MASAGVAAGRQAEDVLPPTSDQPLPDTKPLPPPQPPVPAPQPQSPAPRPQSPARAREEENYSFLPLVHNI IKW

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FIGURE 4741

GCCCTGCCAGCCCCAGACAAGGGCACAGAAACAGCCAGGCCACACCAACTACAGCAGCTATTCCAAGCGGAAGCG
CCTCACTCGGGGCCGGGCCAAGAACACCACCTCTTACCCCTGTAAGGGGCGTGCCAAGCGACGACGACAGCAGCA
GGTGCTGCCCCCTGGATCCCCGAGAGCCTGAAATCCGCCTCAAGTACATTTCTCTTGCAAGCGGCTGAGGTGAGA
CAGCCGGACCCCCGCCTTCTCACCTTCGTGCGGGTGGAGAAGCGAGACGCGTTACCACCATATGCACTGTTGT
CAACTCCCCCTGGAGATGCGCCCAAGCCCCACAGGAAGCCTTCCTCCTCTGCCTCCTCTTCTCATCCTCGTCCTC
GTTCTCCTTGGATGCAAGCCGGGGCCTCCCTGGCCACACTCCCTGGAGGCTCCATCCTGCAGCCGCGGGCCCTCCTT
GCCCCCTCTCCTCCACGATGCACTTGGGGCCTGTGGTTTCCAAGGCCCTGAGTACCTCTTGCCTTGTTTGCTGCCT
CTGCCAAAACCCGGCCAACTTCAAGGACCTTGGGGACCTCTGTGGGCCCTACTACCCTGAACACTGCCTCCCCAA
AAAGAAGCCAAAACCTCAAGGAGAAGGTGCGGCCAGAAGGCACCTGTGAGGAGGCTCGCTGCCGCTTGAGAGAAC
ACTCAAAGGTCCCAGTGTGCAGCTGCCGCCACTGCCGGGAAGCCCCCAGGCCTGACGGCCAGCTGACCCGGC
CAAGCAGGGGCCACTGCGCACCAGTGCCCCGGGGCCTGTCCCGGAGGCTGCAGAGCTGCTACTGCTGTGATGGCCG
GGAGGATGGGGGCGAGGAGGCAGCCCCAGCCGACAAGGGTCGCAAAACATGAGTGCAGCAAGGAGGCTCCGGCAGA
GCCCCGCGGGGAGGCCCAGGAGCACTGGGTGCATGAGGCCTGTGCCGTGTGGACCGGCGGCGTCTACCTGGTGGC
CGGGAAGCTCTTTGGGTGCAGGAGGCCATGAAGGTGGCCGTGGACATGATGTGTTCCAGCTGCCAAGAAGCCGG
GGCCACCATTGGGTGCTGCCACAAAGGATGCCTCCACACCTACCCTACCCGTGTGCCAGCGATGCAGGTGTCAT
ATTCATCGAAGAGAACTTTCTTTGAAATGTCCCAAACATAAGAGGCTGCCGTAGTAATCCACCCCAACGGCCGG
AGGAGCCGCCGGAGCCCCGCTGCCCGCCCGCCGGAAGGAGAGGAGCCGCTGCGCAGCCCCCGGGCCTTTGAG
CTGCTCCAGCGCTGGTCCAGAGCCGATCCTTGATCCGGGTCCCGGATCGTGGATCCGGCCGCCTAGGGCTCAGA
CTTGCGGCCCCGGGTGGGAGGAAAACCGTTCCGGAGCCGCTGCTCCCGGAACCGGACGGCACAGGGCGTTCT
TGCCCCACCCAGGGGCCAGGCTTGCGGAGGGGGAGCCCGGAGCGGCCAGACTCCCCGGGGCGCTCAGCCTCCG
GCGAGGGTGGGAGACGGCTTTGTCTGGGGACACTTTCCTCTGGAATCTCAAGACGACGTGGCACACATTCCAC
GTGGGTGCTGCCGCCACCCAGTCGGTCGTGGCGTGCAGCTGGGAGCCCTGGGCTTGGGGGTGGGGTGCAAACA
GTACTGGAAGAGGCGGAGGGCGGCTCCTAGCTCCGTGGACTAGGCGGGGGAGAAAGGAAGCCTTTCTGAGAGCGG
GCTAGGCCGGCACTGGAGAGGCCGGAGCCTTTGGAACAAACCGTGCGGAACGCGTCCAGGGGCCTTCCCGCCAG
CCTTTGCCAGATCTCTCGTGCGGTTGCGGCAAGCCGGGGTAGACCTGGGCTATGCTCAGTTAGGGGTGCGGGA
TCCCCGAGTGTGGGCGGGACTGGGACACCCTTTGGCCTCTGTTTGTCCCTTTCCAGTCTCCACCCACCCCTG
GAGCCCAGCCTGGGAGCGCAAAACCAAGAAGCGGCCAGAACGCACCTCCGGCTCCGGCGGACGCGCGACCGTTG
TGACACCAGGGACCGCGCGCTACTCTGCACGGGAGCAGGGACAGCGCTAGATTTCTGTGTACAAAACCTGTG
TACCCCTCTATATATATGTTACATAGAATGTATATATGTTGGGAACATGCTCGCTTCTCCCGTGTGTCGCCGCCG
TGCGTCGTGCGCCCGCAACAGAGCCCCAACCGGGCCTTTGCCGGTAAGGGGCTACCGCGACGCCACTTGTCCAC
GCAGCCACCACCGGCCCGGGCCAGTCCCTGCCAGTCCGTCCGCCTGTCCGTCCGTGTCCTCAGCTCTGTCCACGC
TTCGATAGGCCGTGACGCAGCCCCCAGCCAGGGCCGCCCTAGCAACTTCTGTACATATGACTGTAAAATGGTAA
ACGTGTGTATTATATCTGGCCTCGTTATATAGTGTATATATATGTATACATATACATATATATAATATATATGAA
GACTGTAAATGTTAAGACGACTAGTGTCTTATTAGTATATTGCTTCACACTGAAGATTGTGTGTATCGAGCTGT
TTCTAAAAGATGTTTATTTTCTTAAAGAGTAAAAAACAGTCATTGCATTTCAGAAAAAAGTCAA
TAAAGATACAACGATTGTTTTGGAAAA

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FIGURE 4742A

TAACGAGGAACTTTTCGCCGGCGCCGGGCGCCTCTGAGGCCAGGGCAGGACACGAACGCGCGGAGCGGGCGGCGG
CGACTGAGAGCCGGGGCCGCGGGCGGCGCTCCCTAGGAAGGGCCGTACGAGGCGGCGGGCCCGGCGGGCCTCCCGG
AGGAGGCGGCTGCGCCATGGACGAGCCACCCCTTCAGCGAGGCGGCTTTGGAGCAGGCGCTGGGCGAGCCGTGCGA
TCTGGACGCGGCGCTGCTGACCGACATCGAAGACATGCTTCAGCTTATCAACAACCAAGACAGTGACTTCCCTGG
CCTATTTGACCCACCCCTATGCTGGGAGTGGGGCAGGGGGCAGACCCCTGCCAGCCCCGATACCAGCTCCCCAGG
CAGCTTGTCTCCACCTCCTGCCACATTGAGCTCCTCTCTTGAAGCCTTCCTGAGCGGGCCGCGAGGCAGCGCCCTC
ACCCCTGTCCCCTCCCCAGCCTGCACCCACTCCATTGAAGATGTACCCGTCCATGCCCGCTTTCTCCCCTGGGCC
TGGTATCAAGGAAGAGTCAGTGCCACTGAGCATCCTGCAGACCCCCACCCACAGCCCCCTGCCAGGGGCCCTCCT
GCCACAGAGCTTCCCAGCCCCAGCCCCACCGCAGTTTCTGCTTACCCCTGTGTTAGGCTACCCAGCCCTCCGGG
AGGCTTCTCTACAGGAAGCCCTCCCGGGAACACCCAGCAGCCGCTGCCTGGCCTGCCACTGGCTTCCCCGCCAGG
GGTCCCGCCCGTCTCCTTGACACCCAGGTCCAGAGTGTGGTCCCCCAGCAGCTACTGACAGTCACAGCTGCCCC
CACGGCAGCCCCCTGTAACGACCACTGTGACCTCGCAGATCCAGCAGGTCCCGGTCTGCTGCAGCCCCACTTCAT
CAAGGCAGACTCGCTGCTTCTGACAGCCATGAAGACAGACGGAGCCACTGTGAAGGCGGCGAGGTCTCAGTCCCCCT
GGTCTCTGGCACCCTGTGCAGACAGGGCCTTTGCCGACCCTGGTGAGTGGCGGAACCATCTTGGCAACAGTCCC
ACTGGTTCGTAGATGCGGAGAAGCTGCCTATCAACCGGCTCGCAGCTGGCAGCAAGGCCCCGGCCTCTGCCAGAG
CCGTGGAGAGAAGCGCACAGCCACAACGCCATTGAGAAGCGCTACCGCTCCTCCATCAATGACAAAAATCATTGA
GCTCAAGGATCTGGTGGTGGGCACTGAGGCAAAGCTGAATAAATCTGCTGTCTTGCAGCAAGGCCATCGACTACAT
TCGCTTCTGCAACACAGCAACCAGAACTCAAGCAGGAGAACCTAAGTCTGCGCACTGCTGTCCACAAAAGCAA
ATCTCTGAAGGATCTGGTGTGCGCCTGTGGCAGTGGAGGGAACACAGACGTGCTCATGGAGGGCGTGAAGACTGA
GGTGGAGGACACACTGACCCCAACCCCTCGGATGCTGGCTCACCTTTCCAGAGCAGCCCCCTTGTCCCTTGGCAG
CAGGGGCAGTGGCAGCGGTGGCAGTGGCAGTGACTCGGAGCCTGACAGCCCAGTCTTTGAGGACAGCAAGGCAAA
GCCAGAGCAGCGGCCGTCTCTGCACAGCCGGGGCATGCTGGACCGCTCCCGCTTGGCCCTGTGCACGCTCGTCTT
CCTCTGCCTGTCTGCAACCCCTTGGCCTCCTTGTGCGGGGCCCGGGGGCTTCCCAGCCCCCTCAGATACCACCAG
CGTCTACCATAGCCCTGGGCGCAACGTGCTGGGCACCGAGAGCAGAGATGGCCCTGGCTGGGCCCCAGTGGCTGCT
GCCCCAGTGGTCTGGCTGCTCAATGGGCTGTTGGTGTCTGCTCTCCTTGGTGTCTTCTTTGTCTACGGTGAGCC
AGTCACACGGCCCCACTCAGGCCCCGCGGTGTACTTCTGGAGGCATCGCAAGCAGGCTGACCTGGACCTGGCCCCG
GGGAGACTTTTGGCCAGGCTGCCAGCAGCTGTGGCTGGCCCTGCGGGCACTGGGCGGCCCTTGCCACCTCCCA
CCTGGACCTGGCTTGTAGCCTCCTCTGGAACCTCATCCGTACCTGCTGCAGCGTCTCTGGTGGGCGCTGGCT
GGCAGGCCGGGCGAGGGGGCTGCAGCAGGACTGTGCTCTGCGAGTGGATGCTAGCGCCAGCGCCGAGACGCAGC
CCTGGTCTACCATAAGCTGCACCACTGCACACCATGGGAGACACAGCGGGGCACCTCACTGCCACCAACCT
GGCGCTGAGTGCCCTGAACCTGGCAGAGTGTGCAGGGGATGCCGTGTCTGTGGCGACGCTGGCCGAGATCTATGT
GGCGGCTGCATTGAGAGTGAAGACCAGTCTCCACGGGCTTGCAATTTCTGACACGCTTCTTCTGAGCAGTGC
CCGCCAGGCTGCTGGCAGAGTGGCTCAGTGCCCTCCTGCCATGCAGTGGCTCTGCCACCCCGTGGGCCACCG
TTTCTTCTGGATGGGACTGGTCCGTGCTCAGTACCCCATGGGAGAGCCTGTACAGCTTGGCCGGGAACCCAGT
GGACCCCTTGGCCAGGTGACTCAGCTATTCCGGGAACATCTCTTAGAGCGAGCACTGAAGTGTGTGACCCAGCC
CAACCCAGCCCTGGGTGAGTGTGAGGACAAGGAATTCTCGGATGCCCTCGGGTACCTGCAGCTGCTGAACAG
CTGTTCTGATGCTGCGGGGGCTCCTGCCTACAGCTTCTCCATCAGTTCAGCATGGCCACCACCACCGGCGTAGA
CCCGGTGGCCAAGTGGTGGGCTCTCTGACAGCTGTGGTGTACCTGGCTGCGGCGGGATGAGGAGGCGGCTGA
GCGGCTGTGCCGCTGGTGGAGCACCTGCCCGGGTGTGCAAGGCAGAGTCTGGTCCAGCCAGCCTGACCATCTG
TGAGAAGGCCAGTGGGTACCTGCAGGACAGCCTGGCTACCACACCAGCCAGCAGCTCCATTGACAAGGCCGTGCA
GCTGTTCTGTGTGACCTGCTTCTTGTGGTGGCACCAGCCTGTGGCGGCAGCAGCAGCCCCCGGCCCCGGCCCC
AGCAGCCAGGGCGCCAGCAGCAGGCCCCAGGCTTCCGCCCTTGAAGTGCCTTCCAACGGGACCTGAGCAG
CCTGAGGCGGCTGGCACAGAGCTTCCGGCCCCCATGCGGAGGGTGTCTTACATGAGGCCACGGCCCCGGCTGAT
GGCGGGGGCCAGCCCCACACGGACACACCAGCTCCTCGACCGCAGTCTGAGGCGGCGGGCAGGCCCCGGTGGCAA
AGGAGGCGCGGTGGCGGAGCTGGAGCCGCGGGCCACGCGGGGAGCAGCGGAGGCGCTTGTGCTGGCCTCCTG
CTACCTGCCCCCGGCTTCTGTGCGGCGCCGGGCGAGCGGTGGGCATGCTGGCTGAGGCGGCGCGCACACTCGA
GAAGCTTGGCGATCGCCGGCTGCTGCACGACTGTCAGCAGATGCTCATGCGCCTGGGCGGTGGGACCACTGTAC

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FIGURE 4742B

TTCCAGCTTAGACCCCGTGTCCTCCCGGCTCAGCACCCCTGTCTCTAGCCACTTTGGTCCCGTGCAGCTTCTGTCCT
GCGTCGAAGCTTTGAAGGCCGAAGGCAGTGCAAGAGACTCTGGCCTCCACAGTTTCGACCTGCGGCTGCTGTGTGC
CTTCGCGGTGGAAGGCCCGAGGGGCGCGATCTTGACCCTAAGACCGGCGGCCATGATGGTGCTGACCTCTGGTG
CCGATCGGGGCACTGCAGGGGCCGAGCCATTTTGGGGGGCCCCCTCCTTGCTCTGCAGGCACCTTAGTGGCTTT
TTTCCTCCTGTGTACAGGGAAGAGAGGGGTACATTTCCCTGTGCTGACGGAAGCCAACCTTGGCTTTCCCGGACTG
CAAGCAGGGCTCTGCCCCAGAGGCCTCTCTCTCCGTGCTGGGAGAGAGACGTGTACATAGTGTAGGTCAGCGTGC
TTAGCCTCCTGACCTGAGGCTCCTGTGCTACTTTGCCTTTTGCAAACCTTTATTTTCATAGATTGAGAAGTTTGT
ACAGAGAATTAAAAATGAAATTATTTATA

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FIGURE 4743

MDEPPFSEAALEQALGEPCDLDAALLTDIEDMLQLINNQDSDFPGLFDPFYAGSGAGGTD PASPDTSSPGSLSP
PATLSSSLEAFLSGPQAAPSPLSPPQPAPTPLKMYPSMPAFSPGPGIKEESVPLSILQTPTPQPLPGALLPQSFP
APAPPQFSSTPVLGYPSPPGGFSTGSPPGNTQQPLPGLPLASPPGVPPVSLHTQVQSVVPQQLLTVTAAPTAA
TTTTSQIQQVPVLLQPHFIKADSLLLTAMKTDGATVKAAGLSPLVSGTTVQTGPLPTLVSGGTILATVPLV
EKLPIINRLAAGSKAPASAQSRGEKRTAHNAIEKRYRSSINDKIIELKDLVVGTEAKLNKSAVLRKAIDYIRFLQ
SNQKLKQENLSLRTAVHKSKSLKDLVSACSGGNTDVLMEGVKTEVEDTLTPPPSDAGSPFQSSPLSLGSRGSG
GGSGDSEPDSPVFEFSKAKPEQRPSLHSGMLDRSLALCTLVFLCLSCNPLASLLGARGLPSPSDTTSVYHSP
GRNVLGTESRDGP GWAQWLLPPVVWLLNGLLVLSLVLLFVYGEVTRPHSGPAVYFWRHRKQADLDLARGDFAQ
AAQQLWLALRALGRPLPTSHLDLACSLWNLIRHLLQRLWVGRWLAGRAGGLQQDCALRVDASASARDAALVYHK
LHQLHTMGKHTGGHLTATNLALSALNLAECAGDAVSATLAEIYVAAALRVKTS LPRALHFLTRFFLSSARQACL
AQSGSVPPAMQWLCHPVGHRFFVDGDWSVLSTPWESLYSLAGNPVDPLAQVTQLFREHLLERALNCVTQPNPSPG
SADGDKEFSDALGYLQLLNSCSDAAGAPAYSFSISSSMATTIGVDPVAKWWASLTAVVIHWLRRDEEAAERLCPL
VEHLPRVLQESERPLPRAALHSFKAARALLGCAKAESGPASLTICEKASGYLQDSLATTPASSSIDKAVQLFLCD
LLLVRTSLWRQQPPAPAPAAQGASSRPQASALELRGFQRDLSLRRLAQSFRPAMRRVFLHEATARLMAGASP
TRTHQLLDRSLRRRAGPGGKGGAVAELEPRPTRREHAEALLASCYLPPGFLSAPGQRVGMLAEAAARTLEKLGDR
RLLHDCQQMLMRLGGGTTVTSS

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FIGURE 4744

AGGTCTGTTCCGCATGAAACTCCTGCTGGGGAAGGACTTCCCTGCCTCCCCACCCAAGGGCTACTTCCTGACCAA
GATCTTCCACCCGAACCTTGGGCGCCAATGGCGAGATGTGCGTCAACGTGCTCAAGAGGGACTGGACGGCTGAGCT
GGGCATCCGACACGTACTGCTGACCATCAAGTGCCTGCTGATCCACCCTAACCCCGAGTCTGCACTCAACGAGGA
GGCGGGCCGCTGCTCTTGGAGAACTACGAGGAGTATGCGGCTCGGGCCCGTCTGCTCACAGAGATCCACGGGGG
CGCCGGCGGGCCCAGCGGCAGGGCCAAAGCCGGGCGGGCCCTGGCCAGTGGCACTGCAGCTTCCTCCACCGACTC
TGGGGCCCCAGGGGGCTTGGGAGGGGCTGAGGGTCCCATGGCCAAGAAGCATGCTGGCGAGCGCGATAAGAAGCT
GGCGGCCAAGAAAAAGACGGACAAGAAGCGGGCGCTACGGCGGCTGTAGTGGGCTCTCTTCCTCCTTCCACCGTG
ACCCCAACCTCTCCTGTCCCTCCCTCCAACCTCTGTCTCTAAGTTATTTAAATTATGGCTGGGGTCGGGGAGGGT
ACAGGGGGCACTGAGACCTGGATTTGTTTTTTTAAATAAAGTTGGAAAAGCA

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FIGURE 4745

TTTCTCTGGAGGAGCTCCGCGCGTGGCGAGTCTGTGTCTCCTCCCTGTCCCCAGAGCAGAGAACCCTCTCTGTGTCT
TGGACCGGGGAGGAGCAGACGCTGGACAGGGTGTGTGTGTTTCAGCAGTGGATTGTCTAGACTTGGGGTCCCGGCTG
CTCCCTTTTGGGTCTCTCCCCGGGCCCCGCTGATCTGACTGTAATTCCTTCTGCTGGAGCTAGGGTTTCGGCCACCT
TGACGCGCCCCCTCTGCCCCCGGAGCGTGTCTTTGGGTTTGTGTGTGTGGGAGTGGGGTGTATGTGTGTTTCTT
ATCCGAGACACCTCCGGGTCGTTTGCTTGGAACCGGCTGAGGGCCCCGCACAGCCTGGAGCATTGGTTGGAAG
TGAGGCAGGTAGCGCCCAAGGCTCCTGTACCAGGGCCAGGTTAGGCACCAACGCGTCCCTTATGTCTCTGCAGCC
TGCAGTGTGGTGGAAACCGTTTTATAGACTGACAGTGTGAACGTGGGAGGGGATGGATATCAGAGACCCGTTTATC
CACATTTTCAGAGAGTGGTATTGCTCCGATGTGAGTGTAGGCAGGTTACTCTCTGTGTCTCGTGTCTTTACCTG
TAATTTGAGGTTTGTGTGACCTACTTTTAAAGTGGTGGTGTGTGAGGATTAAATGGAATTTTGACATGCAACAGTTG
ACACAGGGCCAGACACCAAGTAAGGGATCAATCAGTTGTTGCTTTTATTAATAGTAGGCATCCATCTGCCCACTT
GTACGTAAGAAGGAAACACCCAAGAATGAAAAGTAGCTTGTGTAGGTCACCCAGCCAAGTACACATAGGGGAA
ATTAGAATCCAGGCACTCCAGCAGGGCACTTTCCACCACCCTGCACTTTTGTATTTCATCAGGCACAATATCCTT
ACTGTTGTCTGTAACGTCTATGTTCCAGTGTCTGACTCTGCAGGGCCCTGGTGGTATAAAGGTACTGAGACTT
GCCTGTGTTTAGGGCTTCTGAAGATTAAATGGCTGCTGAAGTTCTTGAGTTTAGCTTTAGCTCAAAAGATACTG
CGTCAGACTCTGCGTTCTGAGTAGAGTCTCAGACAATGAAAAAAGAAATACAATGAAAAAGGGGAAAACCTCAAT
CCAGAATCTCTTGCCACAGTTTTTGGCAGAATGCTGGCAATTCCCAGGAAGATATGTGGAGAACGGAAAGGTTGC
TACACCCAAATAGTGGCGCAAAGGCTATGATTATGGAGGATTGGACCTGCAAACCTCAGAACAGAGTTCTGCCCT
CTGAGGACCCTGCCCTTTCCCAAAGGGGTATCTTAAGAAGGAAAATATGGCTGCTCTTTGCCGGACAGCAGAGT
CCCAGAGGCTGAACTCCAGTGCACCCAGTTAGACTTGGAGCGGAAACTCAAGTTGAATGAAATGCCATCTCCAG
GCTCCAGGCTAACCAAAAGTCTGTTCTGGTGTGCGGTGTGAGAGGTCAAAGCAGTGGCTGAAATGCAGTTTGGGGA
ACTCCTTGCTGCTGTGAGGAAGGCCCAGGCCAATGTGATGCTCTTCTTAGAGGAGAAGGAGCAAGCTGCGCTGAG
CCAGGCCAACGGTATCAAGGCCACCTGGAGTACAGGAGTGCAGAGATGGAGAAAGTAAGCAGGAGCTGGAGAC
GATGGCGGCCATCAGCAACACTGTCCAGTTCTTGGAGGAGTACTGCAAGTTTAAAGAACTGAAGACATCACCTT
CCCTAGTGTTTACATAGGGCTGAAGGATAAACTCTCGGGCATCCGCAAAGTTATCACGGAATCCACTGTACACTT
AATCCAGTTGCTGGAGAACTATAAGAAAAAGCTCCAGGAGTTTTCCAAGGAAGAGGAGTATGACATCAGAACTCA
AGTGTCTGCCATTGTTTCAGCGCAAATATTGGACTTCCAAACCTGAGCCCAGCACCAGGGAACAGTTCTCTCAATA
TGTGCATGACATCAGTTTCGACCCGGACACAGCACACAAGTATCTCCGGCTGCAGGAGGAGAACCAGCAAGGTCAC
CAACACCACGCCCTGGGAGCATCCCTACCCGGACCTCCCCAGCAGGTTCTTGCAGTGGCGGCAGGTGCTGTCCCA
GCAGAGTCTGTACCTGCACAGGTACTATTTTGGGTGGAGATCTTCGGGGCAGGCACCTATGTTGGCCTGACCTG
CAAAGGCATCGACCAAGAAAGGGGAGGAGCGCAGCAGTTGCATTTCCGGAACAACCTTCTCTGGAGCCTCCAATG
GAACGGGAAGGAGTTACCGGCCTGGTACAGTGCATGGAGACCCCACTCAAAGCTGGCCCTTTCTGGAGGCTCGG
GGTCTATATTGACTTCCAGGAGGGATCCTTTCTTCTATGGCGTAGAGTATGATTCCATGACTCTGGTTCACAA
GTTTGCCCTGCAAGTTTTTCAAGACAGTCTATGCTGCCTTCTGGCTTTCCAAGAAGGAAAACGCCATCCGGATTGT
AGATCTGGGAGAGGAACCCGAGAAGCCAGCACCGTCTTGGTGGGGACTGCTCCCTAGACTCCAGGAGCCATATC
CCAGACCTTTTGCCAGCTACAGTGATGGGATTTGCATTTTAGGGTGATTGGGGGCAAAAATAACTGCTGATGGTA
GCTGGCTTTTGAAATCCTATGGGGTCTCTGAATGAAAACATTCCTCAGCTGCTCTCTTTTGCTCCATATGGTGCT
GTTCTCTATGTGTTTGCAGTAATTTCTTTTTTTTTTTTTTTTTTGGAGACGGAGTCTCGCACTGTTGCCAGGCTGGA
GTGCAGTGGCGTGATCTTGCTCACTGCAAGCTCCGCCTCCCGAGTTCAAGCAATTCCTGCCTCAGCCTCCCG
AGTAGCTGGGATTACAGGTGCCTGCCACCACACCCAGCTAACGTTTTGTATTTTAGTAGAGATGGGGTTTACC
ATGTTGGCCAGGCAGATCTCAAACCTCTGACCTCGTGATGCACTCACCTCGGCCTCCCAAAGTGCTGGGATTACA
GGCGTGAGCCACTGCGCCCTGCTGTTTGTAGTAATTTTAGGCACCAAATCTCCCTCATCTTCTAGTGCCATTCT
TCCTCTCTGTTTCAGGTAAATGTCACACTGTGCCAGAATGGATGACCAGGAACCTTCAAGAGTGGCTGAAAAGAT
TGCAGAGTTATCATAATAAATTGCTAAGTTGCGTATTTCT

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FIGURE 4746

MQFGELLA AVRKAQANV MLFLEEKEQAALSQANGIKAHLEYRSAEMEKSQLEETMAAISNTVQFLEEYCKFKNT
EDITFPSVYIGLKDKLSGIRKVITESTVHLIQLLENYKKKLQEFSKEEEYDIRTQVSAIVQRKYWTSKPEPSTRE
QFLQYVHDITFDPDTAHKYLRLQEENRKVTNTTPWEHPYPDLPSRFLHWRQVLSQQSLYLHRYFFEVEIFGAGTY
VGLTCKGIDQKGEERSSCISGNNFSWSLQWNGKEFTAWYSDMETPLKAGPFWR LGVYIDFPGGILSFYGVEYDSM
TLVHKFACKFSEPVYAAFWSKKENAIRIVDLGEEPEKPAPSLVGTAP

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FIGURE 4747

ACTGCCGGCCTGCGCGGTACTCACTGCCGGCCTCCGCGGTACCCACTGCCGGCCTCCGCGCTACCCGGCCGCAGC
GCGCGAGTCACATGGAAGCTCCTGAGGAGCCCGCGCCAGTGCGCGGAGGCCCGGAGGCCACCCCTTGAGGTCCGTG
GGTCGCGCTGCTTGC GGCTGTCCGCCTTCCGAGAAGAGCTGCGGGCGCTCTTGGTCCTGGCTGGCCCCGCGTTCT
TGGTTCAGCTGATGGTGTTCCTGATCAGCTTCATAAGCTCCGTGTTCTGTGGCCACCTGGGCAAGCTGGAGCTGG
ATGCAGTCACGCTGGCAATCGCGGTTATCAATGTCACTGGTGTCTCAGTGGGATTTCGGCTTATCTTCTGCCTGTG
ACACCCTCATCTCCCAGACGTACGGGAGCCAGAACCTGAAGCACGTGGGCGTGATCCTGCAGCGGAGTGCGCTCG
TCTGCTCCTCTGCTGCTTCCCTGCTGGGCGCTCTTCTCAACACCCAGCACATCCTGCTGCTCTTCAGGCAGG
ACCCAGATGTGTCCAGGCTTACCCAGACCTATGTACAGATCTTCATTCCAGCTCTTCTGCAACCTTTCTTTATA
TGTTACAAGTTAAATATTTGCTCAACCAGGGAATTGTACTGCCCCAGATCGTAACTGGAGTTGCAGCCAACCTTG
TCAATGCCCTCGCCAATATCTGTTTCTCCATCAACTGCATCTTGGGGTGATAGGCTCTGCACTGGCAAACCTTGA
TTTCCCAGTACACCCCTGGCTCTACTCCTCTTCTCTACATCCTCGGGAAAAAACTGCATCAAGCTACATGGGGAG
GCTGGTCCCTCGAGTGCTGCAGGACTGGGCTCCTTCTCCGCTGGCCATCCCCAGCATGCTCATGCTGTGCA
TGGAGTGGTGGGCTATGAGGTGCGGAGCTTCTCAGTGGCATCCTCGGCATGGTGGAGCTGGGCGCTCAGTCCA
TCGTGTATGAACTGGCCATCATTGTGTACATGGTCTTGCAGGCTTCAGTGTGGCTGCCAGTGTCCGGGTAGGAA
ACGCTCTGGGTGCTGGAGACATGGAGCAGGCACGGAAGTCTCTACCGTTTCCCTGCTGATTACAGTGCTCTTTG
CTGTAGCCTTCAGTGTCTGCTGTTAAGCTGTAAGGATCACGTGGGGTACATTTTACTACCGACCGAGACATCA
TTAATCTGGTGGCTCAGGTGGTTCCAATTTATGCTGTTTCCACCTCTTTGAAGCTCTTGCTTGCACGAGTGGTG
GTGTTCTGAGGGGAGTGGAATCAGAAGGTGGAGCCATTGTGAATACCATTGGGTACTATGTGGTTGGCCTCC
CCATCGGGATCGCGCTGATGTTTGCAACCACACTTGGAGTGATGGGTCTGTGGTCAGGGATCATCATCTGTACAG
TCTTTCAAGCTGTGTGTTTTCTAGGCTTTATTATTACAGCTAAATTGGAAAAAAGCCTGTGAGCAGGCTCAGGTAC
ACGCCAATTTGAAAGTAAACAACGTGCCTCGGAGTGGGAATTCTGCTCTCCCTCAGGATCCGCTTCACCCAGGT
GCCCTGAAAACCTTGAAGGAATTTTAACGAACGATGTTGGAAGACAGGCGAGCCTCAGTCAGATCAGCAGTGC
GCCAAGAAGAACCTTTGCCGGAACATCCACAGGACGGCGCTAAATTGTCCAGGAACAGCTGGTGTGCTGCGGCGAG
GGCTTCTGCTCCTGGGGTCTTCTTAATCTTGTCTGGTGGGATTTTAGTGAGATTCTATGTGAGAATTCAGTGAC
GTGGTAGGAAAGAAAGTCAGGTGAGTGATGCTTTTGAGCTTACACACAATTCACAGGCCACCACTGACAATTT
ACTGTGAGTTAATGTCAATCAGGTGTGCCCCATGGATTTTGAGGGCTGGAATGCAAGACACATTTTCTATAAA
AAGAAAAAGCAACTAAGTTAAAGCTATATTGTGGCCCAAGACACTGTCTGAAAGATGACATGAGTAGTAATTC
ACCACTATCTGAACCAAGCAAGGATCAATGTGCTGACTGCATTGGCCAATGGCTTTGATACTTCTGCTATTTTTT
TAGACACAAACCCATAAACTAACTGCTTAAAGAAATTCATACTGCTTGAATTATGTAAAATATATTTTACAGTATAT
CTTTCCTTGGGCTTAGATTACTATTCACTGGGCAAAATGGTATTTGTTTTTGTAAAAATTTTTTTTTTAATAGAC
GGAAGTCTTGCTCTGTCATGCAGGCTGGAGTGCGGTGGTGCGATCATAGCTCACTGCAGCCTCGAACTCTTGGGC
TTCAAGCAATCCTCCTGTGTGTCAGCCACCAGAGTAGCTGAGACTACAGGGGTATGCCACCATGCCAGCTGGCATT
TGTTAATCTTCATTTGAGGTCTAGATCTAGGCACCTGTGGACACTGAAAAACAGTTGGGAAATCTTTCAGCTGTG
GAAATCCAAACAAAGACTGATAATTCTTGGTAGGGGTGTGTGCGTGACGTACTGCAGCCTCAACCTCCTGGGCTC
AAGTGATCCTCCACCTCAGCCTCCTGAGTAGCTGAGACCACAGGCGTGTGCCACCACGCCTAGCTAATTTTTTA
TACCAGGGTCTACCCCTTGTTCACAGGCTGGTCTTGAATTCCTGGGATCAAGCAATCCTTCCACCTTGCCCTCC
CAAAGTGTGGGATTATAGGCATGAGCCACCACGACTGGCCAGAGGACAAAATTTTAATAAAGGTCTTAGCTTAA
GCAGTAATCCTACTTCAATTAAGCCTTCTTGGGGTGC GGTTACACACCGTTAATTCAGCAACCCCTCAGTACATACTA
AGTATGCTCAGTGCTGTGAAAGTGGATTACACCAAATTAAGTCATTCTTATCACACCCAATCAAAAGTCAAGAAG
CCAGGGATAAAAGCACCTCAGGCACATAACATTAATCTAGTAATGTAATTCTCTGCACATCCAGCTGGTGAACCT
GCGTGCTGTAAGCTGGGACCAGCTTTGTCCATAACTGCTGAGAGAACTTGCTGAAGCTCTAGGAATAATTTTGCC
TGCCCGGTTGCTCACCAGTTGTAGCTTGCCAGCTCCCAACACCCCTTCTGCTGGTGAATAAACTTTCTCAAAGAGC
AATACTGACATTTCTTTGATAAAACCTCCAGCCTTCTCTGTGTTGTTCCGACATACCGAGGACCAACTGGTCTA
CATGGATGCCCTGAACATGCAATCTTTCTTCCAAAATAAAACATTAAATAGAG

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FIGURE 4748

MEAPEEPAPVRGGPEATLEVRGSRCLRLSAFREELRALLVLAGPAFLVQLMVFLISFISSVFCGHLGKLELDAVT
LAIIVINVTGVSVGFGLSSACDTLISQTYGSQNLKHVGVILQRSALVLLCCFPCWALFLNTQHILLFRQDPDV
SRLTQTYVTIFIPALPATFLYMLQVKYLLNQGIVLPQIVTGVAANLVNALANYLFLHQLHLGVIGSALANLISQY
TLALLFLYILGKKLHQATWGGWSLECLQDWASFLRLAIPSMMLCMEWWAYEVGSFLSGILGMVELGAQSIVYE
LAIIVYMLAGFSVAASVRVGNALGAGDMEQARKSSTVSLITVLFVAFAFSVLLLSCKDHVGYIFTTDRDIINLV
AQVVPYIYAVSHLFEALACTSGGVLRGSGNQKVGAIVNTIGYYVVGLPIGIALMFATTLGVMGLWSGIIICTVFQA
VCFLGFIIQLNWKKACQQAQVHANLKVNNVPRSGNSALPQDPLHPGCPENLEGILTNDVGKTGEPQSDQQMRQEE
PLPEHPQDGAKLSRKQLVLRGLLLLGVFLILLVGILVRFYVRIQ

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FIGURE 4749

CTCTGAGCAGAACTGACAGCATGAAGGCACTCCTGGCCCTGCCGCTGCTGCTGCTTCTCTCCACGCCCCCGTGTG
CCCCCAGGTCTCCGGGATCCGAGGAGATGCTCTGGAGAGGTTTTGCCTTCAGCAACCCCTGGACTGTGACGACA
TCTATGCCCAGGGCTACCAGTCAGACGGCGTGACCTCATCTACCCCTCGGGCCCCAGTGTGCCTGTGCCCGTCT
TCTGTGACATGACCACCGAGGGCGGGAAGTGGACGGTTTTCCAGAAGAGATTCAATGGCTCAGTAAGTTTCTTCC
GCGGCTGGAATGACTACAAGCTGGGCTTCGGCCGTGCTGATGGAGAGTACTGGCTGGGGCTGCAGAACATGCACC
TCCTGACACTGAAGCAGAAGTATGAGCTGCGAGTGGACTTGGAGGACTTTGAGAACAACACGGCCTATGCCAAGT
ACGCTGACTTCTCCATCTCCCCGAACGCGGTGAGCGCAGAGGAGGATGGCTACACCCTCTTTGTGGCAGGCTTTG
AGGATGGCGGGCAGGTGACTCCCTGTCTACCACAGTGGCCAGAAGTTCTCTACCTTCGACCGGGACCAGGACC
TCTTTGTGAGAACTGCGCAGCTCTCTCCTCAGGAGCCTTCTGGTTCCGCAGCTGCCACTTTGCCAACCTCAATG
GCTTCTACCTAGGTGGCTCCACCTCTCTTATGCCAATGGCATCAACTGGGCCCAGTGGAAGGGCTTCTACTACT
CCCTCAAACGCACTGAGATGAAAATCCGCCGGGCTGAAGGGCTGGCCCCCTCAGGCACCTTTCTCCCTGGAC
ACCATGGTCTCCATGAGTGCTCCCTCTGCTGCCCCCTGATGCATGCTTCTGCTGATTCCCGAGCACCAACTCCTT
ACAAGGGGGCCTTGTGGCTCTCAGCCATGCCACATCCCTGTCACACACCCAGGGCATCCATTCTTAAGCCAGACC
CGGCTCCCCCTACACCTGAAGTTACACTGCCAGCAGTTCCCCAGGCCTCTTCCGAGAGGCACATGGTTCTAGCCTG
GACCTGGCTGGGCTCCATGAGAATGAGTTGCCTCCACCCTGTCCCAACAGCTGACAGCCAGGAGCCACTCTCCCA
GCTGCAGGCCTTTGTGGTCCATCTTGTCTGCTTCCTCACTGTGGACCCCTGTCTGGGCCACCCTAGTGTGCTAA
GCTGAGCAGTGCAGTGTGAACAGGGCCCATGGTGTATTCTAGGCCACAGCCCAGCACTCCTCTGGGCTGCTCTCA
AACCATGTCCCATCTTCAGCATCCCTCCCACCAACTTACTCCCCTGTGGTGAGTACCGTGGAACCCAGCCCACC
TCACTATCATACTCAGCTTCCCCTGATGGCCCATCCCAGCCCCTGAAGCTCTATGCCAAGAACACAGCTACCGCA
CACCACCCTGAAACAGCCACAGCCAAGGTAGGCATGCATATGAGGTCTTCCCCATACCCTCTGGGTGTTGAGAGG
TTTAGCCACATGAGGGAGCAGAGGACAATCTCTGCAGGGCTGGGAGTGGGTAGGGACTGAAGGTCTCAATAAACC
TTCAGAACCTGAATGAAGTGGCTTCATACACACAAACATATTTGTTTATCCCCAAATGTAGGCACCTGGCTCCT
CCTTGCTCCCCTGCTGATGGTGTCTACCCCGAACTCCAAAAATTACACCTGGAGTCAGGTGCAGAAGGGAACCT
TGTATTTACAGGCCTCATTTTGATGGCAAAAAGACAGTGTAAATAATA

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FIGURE 4750

CGGAGACCCCCGCGCTGGGGACGGGAGGCCGGCGAGCCTCGGGACCTCTGAAAGCCTTGAGGAGGCGCGGGGACA
CCATGGCCGAGCCTCTGAAGGAGGAAGACGGCGAGGACGGCTCTGCGGAGCCCCCGGGCCCGTGAAGGCCGAAC
CCGCCCCACCCGCTGCCTCTGTAGCGGCCAAGAACCTGGCCCTGCTTAAAGCCCGCTCCTTCGATGTGACCTTTG
ACGTGGGCGACGAGTACGAGATCATCGAGACCATAGGCAACGGGGCCTATGGAGTGGTGTCTCCGCCCCGCC
GCCTCACCGGCCAGCAGGTGGCCATCAAAAAGATCCCTAATGCTTTTCGATGTGGTGACCAATGCCAAGCGGACCC
TCAGGGAGCTGAAGATCCTCAAGCACTTTAAACACGACAACATCATCGCCATCAAGGACATCCTGAGGCCACCG
TGCCCTATGGCGAATTCAAATCTGTCTACGTGGTCTTGGACCTGATGGAAAGCGACCTGCACCAGATCATCCACT
CCTCACAGCCCCCTCACACTGGAACACGTGCGCTACTTCTGTACCAACTGCTGCGGGGCCCTGAAGTACATGCACT
CGGCTCAGGTTCATCCACCGTGACCTGAAGCCCTCCAACCTATTGGTGAATGAGAACTGTGAGCTCAAGATTGGTG
ACTTTGGTATGGCTCGTGGCCTGTGCACCTCGCCCGCTGAACATCAGTACTTCATGACTGAGTATGTGGCCACGC
GCTGGTACCGTGCGCCCGAGCTCATGCTCTCTTTCATGAGTATACACAGGCTATTGACCTCTGGTCTGTGGGCT
GCATCTTTGGTGAGATGCTGGCCCGGCCAGCTCTTCCAGGCAAAACTATGTACACCAGCTACAGCTCATCA
TGATGGTGCTGGGTACCCCATCACCAGCCGTGATTACAGGCTGTGGGGGCTGAGAGGGTGCGGGCCATATATCCAGA
GCTTGCCACCAGCCCTGTGCCCTGGGAGACAGTGTACCCAGGTGCCGACCGCCAGGCCCTATCACTGCTGG
GTCGCATGCTGCGTTTTGAGCCAGCGCTCGCATCTCAGCAGCTGCTGCCCTTCGCCACCCTTTCTGGCCAAAGT
ACCATGATCCTGATGATGAGCCTGACTGTGCCCCGCCCTTTGACTTTGCCCTTGACCGCGAAGCCCTCACTCGGG
AGCGCATTAAGGAGGCCATTGTGGCTGAAATTGAGGACTTCCATGCAAGGCGTGAGGGCATCCGCCAACAGATCC
GCTTCCAGCCTTCTCTACAGCCTGTGGCTAGTGAGCCTGGCTGTCCAGATGTTGAAATGCCAGTCCCTGGGCTC
CCAGTGGGGACTGTGCCATGGAGTCTCCACCAGCCCCGCCACCATGCCCGGCCCTGCACCTGACACCATTG
ATCTGACCCTGCAGCCACCTCCACCAGTCAGTGAGCCTGCCCCACCAAAGAAAGATGGTGCCATCTCAGACAATA
CTAAGGCTGCCCTTAAAGCTGCCCTGCTCAAGTCTTGAGGAGCCGGCTCAGAGATGGCCCCAGCGCACCCCTGG
AGGCTCCTGAGCCTCGGAAGCCGGTGACAGCCAGGAGCGCCAGCGGGAGCGGGAGGAGAAGCGGGGAGGCGGC
AAGAACGAGCCAAGGAGCGGGAGAAACGGCGCAGGAGCGGAGCGAAAGGAACGGGGGGCTGGGGCTCTGGGG
GCCCCCTCCACTGACCCCTTGGCTGGACTAGTGCTCAGTGACAATGACAGAAGCCTGTTGGAACGCTGGACTCGAA
TGGCCCGGCCCGCAGCCCCAGCCCTCACCTCTGTGCCGGCCCCCTGCCCCAGCGCCAACGCCAACCCCAACCCAG
TCCAACCTACCAGTCCCTCCTCCTGGCCCTGTAGCCCAGCCCCTGGCCCCGCAACCACAATCTGCGGGCTCTACCT
CTGGCCCTGTACCCCAGCCTGCCTGCCCACCCCTGGCCCTGCACCCCACCCCTGCGCCCTCTGGGGCCATCC
CTGTCCCCCGCGCCACCCAGATTGCCACCTCCACCAGCCTCCTGGCTGCCAGTCACTTGTGCCACCCCTGGGC
TGCTGGCTCCAGCACCCAGGAGTTTTGCCTTACTTCCCACCTGGCCTGCCGCCCCAGACGCCGGGGGAGCCC
CTCAGTCTTCCATGTCAGAGTCACCTGATGTCAACCTTGTGACCCAGCAGCTATCTAAGTCACAGGTGGAGGACC
CCCTGCCCCCTGTGTTCTCAGGCACACCAAAGGGCAGTGGGGCTGGCTACGGTGTGGCTTTGACCTGGAGGAAT
TCTTAAACCAGTCTTTCGACATGGGCGTGGCTGATGGGCCACAGGATGGCCAGGCAGATTTCAGCCTCTCTCTCAG
CCTCCCTGCTTGTGACTGGCTCGAAGGCCATGGCATGAACCTGCCGATATTGAGTCCCTGCAGCGTGAGATCC
AGATGGACTCCCCAATGCTGCTGGCTGACCTGCCTGACCTCCAGGACCCCTGAGGCCCCAGCCTGTGCCCTTGCT
GCCACAGTAGACCTAGTTCCAGGATCCATGGGAGCATTCTCAAAGGCTTTAGCCCTGGACCCAGCAGGTGAGGCT
CGGCTTGGATTATTCTGCAGGTTCTATCTCAGACCCACCTTTTACGCTTAAGCAGCCACCTGAGCCACCACCGAGC
CATGGCAGGATCGGGAGACCCCAACTCCCCCTGAACAATCCTTTTTCAGTATTATATTTTTATTATTATTATGTTA
TTATTACACTGTCTTTTTTGCCATCAAAATGAGGCCTGTGAAATACAAGGTT

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FIGURE 4751

CCAGGAGCCCCAGTTACCGGGAGAGGCTGTGTCAAAGGCGCCATGAGCAAGATCAGCGAGGCCGTGAAGCGCGCC
CGCGCCGCTTCAGCTCGGGCAGGACCCGTCCGCTGCAGTTCCGGATCCAGCAGCTGGAGGCGCTGCAGCGCCTG
ATCCAGGAGCAGGAGCAGGAGCTGGTGGGCGCGCTGGCCGAGACCTGCACAAGAATGAATGGAACGCCTACTAT
GAGGAGGTGGTGTACGTCTAGAGGAGATCGAGTACATGATCCAGAAGCTCCCTGAGTGGGCGCGGGATGAGCCC
GTGGAGAAGACGCCCCAGACTCAGCAGGACGAGCTCTACATCCACTCGGAGCCACTGGGCGTGGTCTCGTCATT
GGCACCTGGAACCTACCCCTTCAACCTCACCATCCAGCCCATGGTGGGCGCCATCGCTGCAGGGAACCTCAGTGGTC
CTCAAGCCCTCGGAGCTGAGTGAGAACATGGCGAGCCTGCTGGCTACCATCATCCCCAGTACCTGGACAAGGAT
CTGTACCCAGTAATCAATGGGGGTGTCCCTGAGACCACGGAGCTGCTCAAGGAGAGGTTTCGACCATATCCTGTAC
ACGGGCAGCACGGGGGTGGGGAAGATCATCATGACGGCTGCTGCCAAGCACCTGACCCCTGTCACGCTGGAGCTG
GGAGGGAAGAGTCCCTGCTACGTGGACAAGAACTGTGACCTGGACGTGGCCTGCCGACGCATCGCCTGGGGGAAA
TTCATGAACAGTGGCCAGACCTGCGTGGCCCCCTGACTACATCCTCTGTGACCCCTCGATCCAGAACCAAATTGTG
GAGAAGCTCAAGAAGTCACTGAAAGAGTTCTACGGGGAAGATGCTAAGAAATCCCGGGACTATGGAAGAATCATT
AGTGCCCGGCACCTCCAGAGGGTGATGGGCCTGATTGAGGGCCAGAAGGTGGCTTATGGGGGCACCGGGGATGCC
GCCACTCGCTACATAGCCCCCACCATCCTCACGGACGTGGACCCCCAGTCCCCGGTGATGCAAGAGGAGATCTTC
GGGCTGTGCTGCCCCATCGTGTGCGTGCGCAGCCTGGAGGAGGCCATCCAGTTCATCAACCAGCGTGAGAAGCCC
CTGGCCCTCTACATGTTCTCCAGCAACGACAAGGTGATTAAGAAGATGATTGCAGAGACATCCAGTGGTGGGGTG
GCGGCCAACGATGTCATCGTCCACATCACCTTGCACTCTCTGCCCTTCGGGGGCGTGGGGAACAGCGGCATGGGA
TCCTACCATGGCAAGAAGAGCTTCGAGACTTTCTCTCACCGCCGCTCTTGCCCTGGTGAGGCCTCTGATGAATGAT
GAAGGCCTGAAGGTGAGATACCCCCGAGCCCGGCCAAGATGACCCAGCACTGAGGAGGGGTGCTCCGCCTGGC
CTGGCCATACTGTGTCCCATCGGAGTGCGGACCACCCTCACTGGCTCTCCTGGCCCTGGGAGAATCGCTCCTGCA
GCCCCAGCCAGCCCCACTCCTCTGCTGACCTGCTGACCTGTGCACACCCCACTCCACATGGGCCCCAGGCCTCA
CCATTCCAAGTCTCCACCCCTTTCTAGACCAATAAAGAGACGAATACAATTTTCTAACTC

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FIGURE 4752A

AACTGGAAGGCGCCCGGTCTTTCTTTGACTGGAGCGGACCCGCGGACGCAACCGCCTCGCCAGCCGGAGCCAG
 CGCGAGCTCGGCACGGTGGACACCCGGTCCGAGGCGCGCAAGCCGGCTGGTGCCCGAGTCGGCCAAGCATGGGCA
 ACCACTCAGGACGGCCCCGAGGATCCGGAACCAGGGGCCTTTACAACAATAAACCGACAGGCATTCCAGCCCCAC
 GGAATTTTCAGTAACGTGTCTCAAGAGAGAGGTCTGTGCCACGTGGTCCCTCCAACCCAGGAAATCAGTGTCCA
 GTCCAACCTTCTTCCAACACTCCCCTCTACGAAACACCTGAGGACCCCTTCCACAAAGCCCAAGCAAGAGAATG
 AAGGTGGAGAAAAGGCTGCGCTTGAGTCCCAAGTTCGGGAACCTTTTGGCAGAAGCCAAAGCAAAAGATAGTGAAA
 TTAACAGGCTTCGAAGTGAACATAAGAAATACAAAGAGAAAAGGACTCTGAACGCTGAGGGGACTGATGCTTTGG
 GCCAAATGTGATGGAACATCAGTCTCCCCAGGTGACACGGAACCTATGATAAGAGCTCTTGAGGAGAAAGAACA
 AGAACTTTCAGAAAGAGCTTTCCGATCTAGAGGAAGAAAACCGGGTCTGAAGGAGAACTGATCTATCTTGAGC
 ACTCCCCAAATTCAGAAGGGGCAGCAAGTCACACTGGCGACAGCAGCTGCCCAACATCCATAACTCAAGAGTCAA
 GCTTCGGAAGCCCAACTGGAATCAGATGTCCAGTGACATTGATGAGTATAAAAAAACATACATGGAAATGCAT
 TACGGACATCAGGCTCCTCAAGTAGCGATGTTACCAAAGCTTCTTTGTGCGCAGATGCTTCCGACTTTGAGCACA
 TTACAGCAGAGACACCTCAAGGCCCCGTGCTTCCACCAGTAACCCCTTTAAGAGTTCAAAGTGTCTACTGCTG
 GGAGTTCCCCAAACAGCGTAAGTGAATTGTCCCTGGCTTCCCTCACAGAGAAGATACAAAAGATGGAAGAAAACC
 ACTAGCAGCTGCAGAAGAACTACAGGCTACTCTACAAGAATTATCAGACCAGCAACAAATGGTACAGGAATTGA
 CAGCTGAAAATGAGAAGCTGGTGGATGAAAAGACGATTTTAGAGACATCCTTTCATCAGCATCGAGAGAGGGCAG
 AGCAGCTAAGTCAAGAAAATGAGAAGCTGATGAATCTTTTACAAGAGCGAGTAAAGAATGAAGAGCCCCACCACTC
 AGGAAGGAAAAATTTATTGAACCTGGAGCAGAAGTGACAGGTATTCTTGAACAGGGCCGCTTTGAAAGAGAGAAGC
 TACTCAACATTTCAGCAGCAGTTGACCTGTAGCTTGGCGAAGGTTGAGGAAGAAAACCAAGGAGCTTTAGAAATGA
 TTAACGCTCTGAAGGAAGAAAATGAAAACTGAATGAGTTTCTAGAACCTGGAACGGCATAATAATAACATGATGG
 CCAAACTTTTGAAGAGTGTAGAGTTACCTTGAAGGGCTAAAAATGGAGAATGGATCTTTGAAGTCTCATTTGC
 AGGGTGAGAAGCAGAAAGCCACAGAGGCCAGTGTGTGGAGCAGACGGCAGAGAGCTGCGAAGTTCAGAAATGT
 TGAAAGTAGCCCGAGCAGAGAAAGATCTACTGGAACGTGCTTGCATGAGCTCAGACAAGAATTACTAAAGGC
 ACGGTGAAATTAACATGTTTTCCAGTCTGCTGGCCAAGGTGGAAGGATTATTCATACCTGAAGGAGATGTG
 ATCACCAGCCGAACAGCTGAGCAGAACCAGCCTAAAGCTGCAAGAAAAGCATCAGAGAGTGATGCAGAGATCA
 AAGACATGAAGAAACCATATTTGAATTGGAAGATCAGGTGGAACAGCACCGGGCTGTCAAGTTACACAATAATC
 AACTCATCAGTGAGCTAGAAAGTAGTGTGATCAAGCTGGAGGAACAGAAGTCAGACCTGGAGAGGCAGCTGAAGA
 CTCTGACCAAGCAGATGAAGGAGGAGACCGAGGAATGGAGGCGGTTCCAGGCGGATCTGCAGACCGCAGTGGTGG
 TGGCCAATGACATCAAGTGTGAGGCCAGCAGGAGCTGCGCACCGTGAAGAGGAACTGCTGGAGGAGGAGGAGA
 AGAATGCCCGGTTGCAGAAGGAGCTGGGGGATGTGCAGGGCCACGGCAGGGTGGTCACCAGCAGAGCCGCCCTC
 CACCTGTGGATGAAGAGCCAGAGTCTCTGAGGTGATGCTGCTGGTGGTGGCTGGTGTCTGTGTTAGCAGAA
 CATCTCCAACACCCCCAGAGTCGGCAACCACCGTTAAGTCACTTATCAAGTCATTTGACTTGGGACGCCAGGTG
 GAGCTGGACAGAATATTTCTGTCCATAAGACCCCCAGAAGTCCCTAAGTGGGATACCAGTGAGGACTGCTCCAG
 CAGCTGCTGTCTCTCAATGCAGAGGCATTGACTTACAGCAGTGTGCGGCCAGCCAGCAGAGGGGTGACTCAAC
 GCTTGGACCTTCCTGACCTTCCCCTCTCAGATATTCTAAAGGGAAGGACTGAGACCCTGAAGCCAGACCCCCACC
 TCCGCAAGAGTCCCTCACTAGAGTCACTGAGCAGACCCCGTCTCTGGGCTTTGGGGACACAAGACTGCTGAGTG
 CTTCCACCCGGGCATGGAACCCACAAGCAAACTCAGTGTGGAAGAAAAGACCCTCTGGCAGCCTTGGCCCGGG
 AATACGGTGGTTCCAAGCGCAATGCTCTACTGAAATGGTGCCAGAAGAAGACACAAGGTTATGCGAACATTGACA
 TCACCAATTTTCAGCAGCAGCTGGAGCGATGGCCTGGCTTCTGTGCTCTGCTCCACACCTACCTGCCTGCCACA
 TCCCTACCAGGAGCTGAATAGTCAGGAGAAAAAGAGGAATCTCTGTGGCATTGGAAGCGGCTGAAAGTGTAG
 GCATCAAACCCAGCCTGGAACCTCAGCGAGATGCTGTACACAGACCGGCCGACTGGCAGAGTGTGATGCAGTACG
 TGGCCCAAATCTACAAGTACTTTGAGACGTAACCTGGAGGGCTGGGGCAGCCACCATTGCCACCTACTGCAGC
 TTTTCTGGAAGCGCCTGATTACTGTCCACTGACCTGCTCTGCCACCACCCAGCTGCCTAGACTTCAAAGACA
 GGCTCAATCCAAGTGGACCAACACCCAAATAAGAAACAGAGTGGGTCCACGATGTACCTGTCTGAAATGCAAT
 GCAGCTGGACTGTAAATTGGGGACTCTTTGATCTCTTGTGGGATGCTTCTAAAGAGGGCAGCCTCCCTCCTTCCA
 GACCAAGACCCACACCCAGGCTTGTGTTGTGATTATATGGGTGGCTGAACGAACACATTATCTGCAGAAAT
 CAGACAAAGAACATCTCCAAATCAGTCTTTTGGTTGCTGTGTTAAAAATATCCCGGCTTTGCCTTTATGAACCC
 TTTGCCCTTGGCTGGGTGTGGTAGCTCGTGGCTGTAATCCAGCACTTTAGGAAGCCAAGGCAGTAGGATCGTTT

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FIGURE 4752B

GAGCCCAGGAGTTTCGAGGCTGCAGTGAGCTATGAGCATACCACTGCACTCCAGCCTGTGTGAAAGAGCCAGACCC
TGTCTC

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FIGURE 4753

MGNHSGRPEDPEPGAFTTTKRTGIPAPREFSVTVSRERSVPRGSPNPRKSVSSPTSSNTPTPTKHLRTPSTKPKQ
ENEGGEKAALESQVRELLAEAKAKDSEINRLRSELKKYKEKRTLNAEGTDALGPNVDGTSVSPGDTEPMIRALEE
KNKNFQKELSDLEENRVLKEKLIYLEHSPNSEGAASHTGDSSCPTSITQESSFGSPTGNQMSSDIDEYKKNIHG
NALRTSGSSSSDVTKASLSPDASDFEHITAETPSRPLSSTSNPFKSSKCSTAGSSPNSVSELSLASLTEKIQKME
ENHHSTAEELOATLOELSDQQQMVQELTAENEKLVDEKTILETFSFHQHRERAEQLSQENEKLMNLLQERVKNEEP
TTQEGKIIIELEQKCTGILEQGRFEREKLLNIQQQLTCSLRKVEEENQGALEMIKRLKEENEKLNELERHNNN
MMAKTLEECRVTLLEGLKMENGLKSHLQGEKQKATEASAVEQTAESCEVQEMLKVARAEKDLELSCNELRQELL
KANGEIKHVSSLLAKVEKDYSYLKEICDHQAEQLSRTSLKLQEKASESDAEIKDMKETIFELEDQVEQHRAVKLH
NNQLISELESSVIKLEEQKSDLERQLKTLTKQMKEETEEWRRFQADLQTAVVVANDIKCEAQQELRTVKRKLEE
EEKNARLQKELGDVQGHGRVVTSTRAAPPVDEEPESSEVDAAGRWPVCVSRSTSPTPPESATTVKSLIKSFDLGR
PGGAGQNISVHKTPRSPLSGIPVRTAPAAVSPMQRHSTYSSVRPASRGVTQRLDLPDLPLSDILKGRTEITLKP
PHLRKSPSLESLSRPPSLGFGDTRLLSASTRAWKPQSKLSVERKDPLAALAREYGGSKRNALLKWCQKKTQGYAN
IDITNFSSSWSDGLAFCALLHTYLPAPHIPYQELNSQEKRNLLLAFAEAESVGIKPSLELSEMLYTDRPDWQSV
QYVAQIYKYFET

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FIGURE 4754

CGCGGTGCCTTTTGAGCTCCTTGTCCACGCTCCGCCCCTGTGGGAACGGCCGCGCTCCCCGCAGCTGGTCATCCG
 CCGCCTGCCTCCGGGCTCACCAAGGAGCAGCTGGAGGAGCAGCTGCGCCCGTTGCCAGCACACGACTACTTCGA
 GTTCTTCGCCGCCGACCTGAGTCTTTATCCTCATCTCTACTCAAGAGCATACTTAATTTTAGGAATCCTGATGA
 CATCCTTCTTTTTAGAGATCGTTTTGATGGGATATATCTTCCTTGACAGCAAAGATCCAGAAATATAAGAACTTT
 TAGAAACCTACTGTGTGGAGGAAGAGAAGGCCAGTGCCAACCTGAGACTCTGCTGGGGGAGATGGAGGCGAAGA
 CAAGAGAGCTCATTGCTAGAAGAACCACACCTCTTTTGGAATATATTAATAATAGAAAATTAGAAAAGCAGAGAA
 TTCGAGAAGAGAAGCGAGAAGAACGGAGGAGGAGAGAGTTAGAAAAGAAAACGTTTGCGGGAAGAGGAAAAAGAA
 GAAGAAGAGAAGAAGAAAGATGCAAAAAAAAAAAGAGAGACAGATAAACAGAAAGAAAATTGCAGAGAAAGAAGTA
 AGGATTAAGCTTCTTAAGAAACCAGAAAAGGGAGAGGAACCAACCACAGAGAAACCAAGAAAGAGAGAGAGAG
 ATTGATACTGGAGGTGGCAAGCAGGAATCCTGTGCCCCCGGTGCAGTCGTAAAGCCAGGCCCGTGAAGGCTCG
 CTGGAGGAGCCCCAGGAGACGTACACAGCGGCAGTGATAAAGAGCACAGGGATGTGGAGAGATCTCAAGAACAA
 GAATCTGAAGCACAAAGACACCATGTGGATGATGGCAGGAGGCACAGAGCTCACCACGAGCCTGACCGGCTTTCC
 AGAGGGAGTGAGGATGAGCAGAGATGGGGGAAAGGACCTGGCCAAGACAGAGGGAAGAAGGGGAGCCAGGACAGC
 GGGGCTCCGGGGGAGGCCATGGAGAGACTGGGAAGAGCGCAGAGGTGTGACGACAGTCCAGCACCCAGAAAAGAG
 CGACTGGCAACAAGGACCGGCCAGCCTTGACAGCTGTATGATCCAGGAGCTCACTTCCGAGCGCTAGAGTGTGGC
 GGAACAGGAGGATCTGCAAGGCAGAAGGTTCCGGGAACGGTCTGAGAAGAGGGGAAGAGGCAGAGTGAGTCACT
 GCACGCACCTGGCCTCCATGGACGAGCGAGGGCATCCCAGAAACGTGTAAATGACCCCGAGTGTGACTGGGAAGG
 AGAACTTATTCTTACCAGGAACTGGAAGCTAAACTACAGAGGGTGACATAGAAACACGCAGAAACCATTCTA
 AAGAAAGTAGTGATCTTGTATTAAATTGAGCAGAATTCTCACAGATTTTACCATTCTGTATAAACTAGTATTT
 GTTGTTTAGCCAAAACAGAAAATGATTTCCACTGGACAGTAGAAAAATATGTGTAAATAGGGGAAGAAAGTTAGT
 ATTGGATCAGTGTGAGTCCTGAAGCACTTTCAGTGTGTGAGAACGACATCCACTTTGGGTTTCATTCTGTTTGT
 AGCAGAGGAGCTGTGAGTCACTCGTGCTTCTGTTGGCCTCTGAGCCATGGTGTGAGTGAAGAGTAGTTCTTGT
 TTGTTACAACCTTTGTGAGTCAGCCATGCCTGCAAAGTGTGCTGTGTTTTAGTCCTGGTAGGAATATTTATCAGA
 GTTCACACTATATAAAACCCAACAGCTTCAACTATTGCCCTTTCAACAGTTTTGCCACTGACCGGATAAAAACGG
 TTTCAGTCTTTGGATGGATGTGTTTGTGTTTGTAAACCATTACGGTTTTAAACCATGGTTTAAGAATTTGCCCAA
 TAACAGAAATTTTGTTCGGGAAGGGATAAACGAGATATAGCATATAGAGCCTGTTTTTGTAGTTTTAGATACTTTA
 TTTGTAAATAACTTAAATAGCTTTCTGAAACCGTGCACTTCTGTAGTTTCTTCTTTTCAGTGAAATTGCTAAATG
 TGAATGTATTTTGGCACTGCGATTTTAACCATTTATTAAATAAAAAATTTGTAAAG

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FIGURE 4755

GTAAGACACCTTTGCAGTCCTTCCTGGGAATCGCTGAGCAGCACGGGGGCCCCAAAATGGGACCCTGATCACTC
AGACTCTGAGCCAAGCCAACCCCACTGCCATCACTGCAGAAGAATACTTCAACCCCAACTTTGAGCTGGGCAACC
GTGATATGGGCCGCCCCATGGAAGTACCACCAAGACACAGAAGTTCAAGGCCAAGCTGTGGCTGTGTGAGGAGC
ATCCCCCTGTCCCTGTGTGAGCAGGTGGCCCCCATCATTGACCTCATGGCCGTCAGCAATGCGCTTTTGGCCAAGC
TCCGGGACTTCATCACCTGCGTCTGCCTCCTGGCTTCCCAGTTAAGATTGAAATCCCGATCTTCCACATCCTCA
ACGCCCCGATCACCTTCGGGAACCTCAACGGCTGCGACGAACCGGTGCCATCGGTGCGAGGCAGCCCCAGCAGCG
AGACGCCTTCCCCAGGCAGCGACTCCTCCAGCGTCAGCAGCTCCAGCTCCAAGACCTCCTGXCCGCGGCTGCGAG
ATCTCCCCAGCGTTGTTTCGAGGCCCGCGCGGCTACAGCATGATGGGCGGCCAGCGGGAGGCGCGACCCGGGAC
GACGACGACGACCTGCTGCAATTCGCCATCCAGCAGAGCCTGCTTGAGGCGGGCAGTGAGTATGACCAGGTCACC
ATCTGGGAGGCGCTAACCAACAGCAAGCCAGGCACCCACCCCATGTCTACGAGGGTCGCCGACAGGACAGGAGC
GCCCCGCCCCACGCCGAGCGCCAGCCTGCGCCCCCGGCGTCACTGCCAGCCCTCGGCCAGCTCAGGGCCAGGT
TCCGGCGGCCACGTGTTCCGGAGCTACGACGAGCAGCTGCGGCTGGCGATGGAAGTGTGCGCGCAGGAGCAGGAG
GAGAGGCGGCGCGCGCGGCCAGGAGGAGGAGGAGCTGGAGCGCATCCTGAGGCTCTCACTGACCGAGCAGTAG
CGCCCCCTGCCGGGACCCTCGCCAGCGCCACGCGCGCCACGCCCAGGGCCAGGAGCCAGACAAACCCCGGCTGC
GCGCCTGCAGAGCGGCGGCTGGAGACTGGAGCCACCGCCTCGCGGGTGCAGCAGCACAGCAGGCACGGTTCGGGG
AGGGATTGCGCATGGCCGCGGGGTACCTTCCCAGGCCAGGGCCCTGGAGGCAACTGGCACGGCTGGTCCCCCTG
CTTTGCTGTATTCTGATTCCCCAACCCGCTCCCTGGGCTCAGATCTGTCCTGTCTTAGGGCGGAGCCAGGCGGT
CCTGAGGGGGAGATGAATCCTTAGAGGAGCGTGTCCCTATCCCTTGCTCCTTCTGGCCGGTCCGCATTTCTGTT
CACTAACCCCACTCCAGGACACTGCCCTGAAGCCTTGCATCTCTGCTCTTCACTCCTGGGGGGCAGCTGAGCT
CCCCGCGTGTGTGTCACTGCTTTGTTCCAGACACAAACAGCAGTCTAGGGCCCAGCCCCCTCCCCACCCCGG
CATTTAGCGTCAAGTGCACTTAGCGGGGTACCCGGCTCCCCAGCCCCACACCCGTCTGGGTCTCAGGGTGG
TTCCAGCTTCTCCTTGGGCAGCCAGAAGTTGGAGTCCCATCCCCCAAGGCACATTTTTTTTTTTTTTTTTTGTG
ATCAGGGAGTGTGTCCAACGTAGCCCCCTGGCTGTGCAAGCCCTGACTCCCTCATGGTGCCTCGGAGAGTGGGG
AGCATATTGGGCTGGGGTAAGCACTAGACCCAAGTAGACTGGACACAAAGGGCTCGCCCAGGGCCCTGGCGCCAC
CCCCACCCCTTCCCACCAGCTGCTGCTAGCCTCTGTGGTTGTACATCCCACTTGCCCCACACGGAGACTGACTC
TAAAACCCCTTATCCAATGGTGCTAACCCCCGGCTCTCCCTGCCCCACCTCACCCACCCAGAGAAGCACAGACC
CCGCCAGGGGCAGGGGCCACCGCACACCCCTTGTCCCGGGCTGTCTGGGACTGGCCTTCCCGGCTCAGCCAGTG
AGGCTCAGAAGGGACACAAAGAGGGATGGAAGAAAAGAACAAGAGAACTGTTCTCCACCCCTTCCCTGAT
GCCAGGGGCACCAGACTGATTCTGAGGCACAAATAAAGAGGGCTTCATACCGG

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FIGURE 4756

MTWQRGNRSFVFRGQDTSADVMEIDHRRVVYTETLALAGQDRELLAAAQPTTEEQVLSRLTAPVVTTQLDTKNI
SFERNKTGILGWRSEKTEMVNGYEAKVYGASNVELITRTRTEHLSEQHKGKVKGCKTPLQSFGLGIAEQHGQPQNG
TLITQTLSQLANPTAITAEYFNPNFELGNRDMGRPMELTTKTQKFKAHLWLCEEHPLSLCEQVAPIIDLMAVSNA
LFAKL RDFITLRLPPGFPVKIEIPIFHILNARITFGNLNGCDEPVPSVRGSPSSETPSPGSDSSSVSSSSSTTSC
RGCEISPALFEAPRGYSMMGGQREAA TRDDDDLLQFAIQQSLLEAGSEYDQVTIWEALTNSKPGTHPMSYEGRR
QDRSAPPTPQRQPAPPASVPSRPSSGPGSGGHVFRSYDEQLRLAMELSAQEQEERRRRARQEEEELERILRLSL
TEQ

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FIGURE 4757

TCGCCGCTGAGGATGTCCCGAAAGGGGCCGCGAGCGGAGGTGTGTGCGGACTGCAGCGCCCCGGACCCTGGCTGG
 GCATCCATCAGCAGGGGTGTGCTGGTGTGTGACGAGTGTGTGACGCGTGCACCGGAGCCTGGGACGCCACATCTCC
 ATTGTCAAGCACCTTCGCCACAGCGCCTGGCCTCCCACGCTGTGTGACAGATGGTGCACACGCTTGCCAGCAACGGG
 GCCAACTCCATCTGGGAGCACTCCCTGCTGGACCCCGCACAAGTGCAGAGCGGCCGGCGTAAAGCCAACCCCCAA
 GACAAAGTCCACCCCATCAAGTCAGAGTTTCATCAGGGCCAAGTACCAGATGCTGGCATTGTGTGACAAGCTTCCC
 TGCCGGGACGATGATGGAGTCAACGCCAAAGACCTCAGCAAGCAACTACACTCGAGCGTGCAGGACAGGCAACCTG
 GAGACATGTCTGCGCCTGCTCTCCCTGGGTGCCAGGCCAACTTCTTCCACCCAGAGAAGGGCACCACACCTCTG
 CACGTGGCTGCCAAGGCAGGACAGACACTGCAGGCCGAGCTGCTTGTAGTGTATGGGGCTGACCCTGGCTCCCCT
 GATGTTAATGGCCGCACACCCATTGACTATGCCAGGCAGGCGGGGACCATGAGCTGGCGGAAAGGCTGGTTGAG
 TGCCAATATGAGCTCACTGACCGGCTGGCCTTCTACCTCTGTGGACGCAAGCCGGATCACAAGAATGGGCATTAC
 ATCATCCACAGATGGCTGACAGATCTCGGCCAAAAGTGCATGTCTCAGAGCCTTGACTTATCCGAATTGGCCAAA
 GCTGCTAAGAAGAAGCTGCAGGCGCTCAGCAACCGGCTTTTGTAGGAACTCGCCATGGACGTGTATGACGAGGTG
 GATCGAAGAGAAAAATGATGCAGTGTGGCTGGCTACCCAAAACACAGCACTCTGGTGACAGAGCGCAGTGCCGTG
 CCCTTCTGCGCTGTAAACCCGGAATACTCAGCCACGCGGAATCAGGGGCGACAAAAGCTGGCCCGCTTTAATGCC
 CGAGAGTTTGCCACCTTGATCATCGACATTCTCAACAACCTCGAGCTGTCTCTGCGGAGCCAGAGTGACCTCGAC
 GACCAACACGACTACGACAGCGTGGCCTCTGACGAGGACACAGACCAGGAGCCCCCTGCGCAGCACCGGCGCCACT
 CGGAGCAACCGGGCCCGGAGCATGGACTCCTCGGACTTGTCTGACGGGGCTGTGACGCTGCAGGAGTACCTGGAG
 CTGAAGAAGGCCCTGGCTACATCGGAGGCAAGGTGCAGCAGCTCATGAAGGTCAACAGTAGCCTGACGCGAGAG
 CTCCGGAGGCTGCAGCGAGAGATCCACAAGCTGCAGGCGGAGAACCTGCAGCTCCGGCAGCCTCCAGGGCCGGTG
 CCCACACCTCCACTCCCCAGTGAACGGGCGGAACACACACCCATGGCGCCAGGCGGGAGCACACACCGCAGGGAT
 CGCCAGGCCTTTTCCATGTATGAACCTGGCTCTGCCCTGAAGCCCTTTGGGGGCCCCCTGGGGACGAGCTCACT
 ACGCGGTGCGACCTTTCCACAGCACTGAGCTAGAGGACGACGCCATCTATTAGTGACAGTCCCTGCTGGCCTT
 TACCGGATCCGGAAAGGGGTGTCTGCCCTCAGCTGTGCCCTTCACTCCCTCCTCCCCGCTGCTGTCTCTGCTCCAG
 GAGGGAAGCCGCCACAGCAAGCTTTCCCGCCACGGCAGTGAGCCGACAGTGACTATGAGAACACGCAAGT
 GGGGACCCACTGCTGGGGCTGGAAGGGAAGAGGTTTCTAGAGCTGGGCAAGAGGAAAGACTTCCACCCAGAGCTG
 GAAAGCCTGGATGGAGACCTAGATCCTGGGCTTCCAGCACAGAGGATGTCATCTTGAAGACAGAGCAGGTACCC
 AAGAACATTAGGAACCTGTTGCGGGCAGCCCAGGAGTTCAAGCATGACAGCTTCGTGCCCTGCTCAGAGAAGATC
 CATTGGCTGTGACCGAGATGGCCTCCCTCTTCCCAAAGAGGCCAGCCCTGGAGCCAGTGCGGAGCTCACTGCGG
 CTGCTCAACGCCAGCGCCTACCGGCTGCAGAGTGAGTGCCGGAAGACAGTGCCCCCAGAGCCCGGCGCCCAAGTG
 GACTTCCAGCTGCTGACTCAGCAGGTGATCCAGTGCGCCTATGACATCGCCAAGGCTGCCAAGCAGCTGGTCACC
 ATCACCACCCGAGAGAAGAAGCAGTGACCTCTCTCCCCACACCTCACCTGCACCTAGGACCTCACTGGCCATA
 GGAGCTGGGGCACTCCAGACATTAATCCCCACCCCAACAGAGCCACTGGCACAAGTGCCCTTAGTGCTGCCACAC
 TCCCTGGCAGCCAGGTGCCCTGGTGCCACCCCTGTGAGCCCCTAAGGATGGGGAGGTGGGGGGGAGGAGCT
 TCTGTCCCCCACATTCCATGCACCTCCCTCTGTATATAGCATCTCCCCCTCCTAGTGAGCAGGGGCTGCAAG
 GCATCACTCCCAGCCCCCTCGCCTTCTAGGGCACCCCTCAGCAAAGGGGCAGGTGGGGACACTCCAAGTGGGGCAGC
 TCTCCGTACATGCGCCCCACCCCATGAGCCAGTTCAGCCCTACTGGGGGCTGAGCGGGGGCATCCCCCTCCTTG
 TACATAGTCTCCATGGATGTCCCTGCCCTGTAGCCACCAGCCCCCTGCTGCTCTCCCTTTAATGCCATATGGCCC
 CTGCTAGGGCACAGGCCCCAACCTGTGTGCTGGGGTCCCCAGCAGCAAACACTGGAAGTCTGTTTTTTTTTTT
 TCTTTCTTTTCCCCACCCCTTAATTTTAACTTTGTGGTAACTGAGTGCCCCCGCTGCTGCGTGTGAGTGTG
 TGGGCGGCAGTGCCGTTCCGGAGGCTGGTCCATCTGGAGTTTTGAGGGGTGAGGGGACCAGAGCAGTGGGACCA
 GCATGGGGATCAGCTTCCCTTCCCCACCTGGAGCCAGGGACTGTCCGGGTAGCCAGTTTTGCTCCTGCCAGCTGC
 CTCCCTGATCCCTCCCCACTCTCGCCCCCTTCTCTATGAACCTAAATCAAAAACCACTTCCCTCCATCTCCTCCTG
 CTCTGCGTGGAGGGGGAATGTGTGCTGGCTAGGGTGGAGGACTGAGCACCTGAGCCTGGGGCTGGCTCCCCGGG
 GTCCCCGACTCAGCTGGTGGCTGTGGAGCTGAGTCCCCTCCCCGTAACTCTGCAAGGCCAGCACCCACCATCAC
 TACCTGCACCTGCTGTGGTCCCACCTCTGGAGGCTGGGAACCTGGCTGCAGCCTGGGAAGGCTGGAGAGGCAG
 ACGGTGGGACCCACAGCTCTCTCCCATCCGCTTCTTCCCTGGGGGCCAGGCCCTACCTGTGTGGTGGTGGGT
 GGGCTGTCAAGACGTGTCATGTACATTTGTATCAAAAATAAAGAAGTGACCATG

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FIGURE 4758

AGCCCTCGCGGGGGCAAGGCGGCGACCGAGGCGCGTGGGTCTGGGAAGGCGCGCGGATTTGGCCCCCTCTTCTCAC
ATCAGCGGGTCCAGGCCCAACCGACAGACTATGGGGGCTCCGGCAACCAGGCGCTGCGTGGAGTGGCTGCTGGGC
CTCTACTTCCTCAGCCACATCCCCATCACCTGTTCATGGACCTGCAGGCGGTGCTGCCGCGCGAGCTCTACCCA
GTCGAGTTTAGAAACCTGCTGAAGTGGTATGCTAAGGAGTTCAAAGACCCACTGCTACAGGAGCCCCCAGCCTGG
TTTAAGTCCTTTCTGTTTGGCGAGCTTGTGTTTCAGCTGCCTTTCTTTCCCATTTGCAACGTATGCCTTCCTCAA
GGAAGCTGCAAGTGGATTGCAACTCCTGCAATCATCTACTCTGTTTCACACCATGACAACCTTAATTCCGATACTC
TCCACATTTCTGTTTGAGGATTTCTCCAAAGCCAGTGGTTTTCAAGGGACAAAGACCTGAGACTTTGCATGAACGG
TTAACCTTGTGTCTGTCTATGCCCCCTACTTACTCATCCCATTTCATACTTTTAATTTTCTATGTTGCGGAGCCCC
TACTACAAGTATGAAGAGAAAAGAAAAAATGAAGGAAACAACCACTGGCCCAGGGTAGAGATGCCTACAGG
GTGGTTGCTTGTGGATACAATAACAAGGAACACTGCTCAGAACCACAGTCTTCAGCAGCATTGAAACACTGGCA
GCAATGCACAAGAGCAAGATGGTGTGAGGAACCATGTCAAACCCTCACCTTCTTCCATTTTTTTTTTTTTTTAA
GACAGTCTCACTCTGTTGCCAGGCTGGAGTAAAGGGCAGTGGCATGATCTCGGCTCACTGCAACCTCCGCCTCC
TGGGCTCAAGCCATCTTCCCTAGCCTCCCAAGTAGCTAGAACTACAGGTGTGTACCAACACGTATGGCTAATTTG
TTTTGTTTTTTTTGTGTGTGTGGAGACAGGGTTTTGCCATGTTGCCAGGTTGGTCTCGAACGCCTAGGCTCAAG
TGATCTGCCCCACCTCAGTCTCCCTAAGTGTGGGATTACAGACGTGAACCACTGGGCCCAGCCCAAACCTTCACC
TTCTAAGGGCACTGGGATGAACAGACCGATCGGCTTGAGGGTGGGCAAAGGGGTGTGGGCTAGGTTATAAGGAAG
TGGTACCAAATAACTGTGTGCCTGAGTTCCACCGCAAGATTACTAAAAGCAGGACCAGACCAGAACTGCTAAAG
AACATGGCCTGTTTGACATGTTTCATGAGTCACCTGACCCACAGCATATATGCTTATGACTAAACCTCCACTCCT
GATTCTCAAGAGTGATCACC TGTCAGCAAAATGAATAGTGGGATATTTTGGGCCATTTTAAATGTGAAATTTG
CCTCTTTAATGTTAATTCAAACCTATATCAATGTTTTCTTGTTCACCTCTAACCCAAGGAAAAAGAGAAAAAC
ATACTATGCAAAGGAAGTTTAACTTAAGTTTTCTTAAGGGTCAGCCCAACAATGACTTTCAGTCAAATGGATT
AAACTGGAAATGTTTTTGTCTGTTGTAAACAGATCATCCTAGGCGAAAGTTTTTTTTGTTTGTGTTGCTTTTA
AATTAGTTTTATTTCTAAATCTTAGTCTTCCACATTTCTAGAGGCCACCTGACACAAGTCCCTGTATCTGAAGTCT
AGCATCTCAAGGCTGATCTGGAAGTGTGCTAGTATGCTCCCTAGTGGATAACTTAATCTTTTAATACAGTTCCGT
CATTCCCATCTTGTTCAGAAAGAGAAGGTGGCTACAGCCAGGCATAACATATCCACTGTGTGCATAGAGGGTCT
CTTCACGTTGATGCTTGGCATTCCATCAGCTTTCTCTAAGTCTTTGCTCAAGTTCAACCTTAAATGATGTAGTA
CAACAGGTCCCAGTCAGTTCCCTCTATTTTACCCATTTTGCTCACAAGCCATATTGGCCCGATTAGTGGTACTG
TCTGACTCACGTGTGTGATCCAAATAAAGGTAGCTGCTG

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FIGURE 4759

MKRKEKKNEGNNHWPRVEMPTGWLLVGYNTRNTAQNPRLQQHLKHWQQCTRARWCQEPQTLTFFHFFFFFFKTVS
LCCPGWSKQWHDLGSLQPPPPGLKPSSLASQVARTTGVIYQHVWLICFVFFVCVETGFCHVAQVGLERLGSSDLP
TSVSLSAGITDVNHWAQPKPSPSKGTGMNRP IGLRVGKGVWARL

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FIGURE 4760

GCCACCCAGCTGAGAGGAGAGGCGCCCCGGGGACGCACTGAGATTATGAGGCTCTGGCCTCCACTGGCCACTCA
CTCGTGACCCTTTCCACCACGGCGGAGCCTTCCAAGCCTACCTCCTGCCGTGTGGTGATCTACCTGCAGCGGGAG
ATGTCGGGGGACACCTGCCTGTGCCCAGCCTCAGGGGGCCAAGCCCAAGCTCAGTGGCTTCAAGGGAGGAGGGTTG
GGCAACAAGTATGTCCAGCTCAACGTGGGCGGCTCTCTGTACTACACCACTGTGCGGGCCCTGACCCGCCACGAC
ACCATGCTCAAGGCCATGTTTCACTGGGCGCATGGAGGTGCTGACCGACAAAGAAGGCTGGATCCTCATAGACCGT
TGTGGAAGCACTTTGGCACCATTTTGAATTACCTCCGAGATGACACCATCACCTCCCTCAGAACCAGGCAAGAA
ATCAAGGAATTGATGGCTGAAGCAAAGTATTACCTCATCCAGGGGGCTGGTGAATATGTGCCAGAGTGCCCTGCAG
GACAAGAAGGACTCCTACCAGCCTGTGTGCAACATCCCCATCATCACATCCCTAAAGGAGGAGGAGCGGCTCATC
GAATCCTCCACCAAGCCCGTGGTGAAGCTGCTGTACAACAGAAGCAACAACAAGTATTCTACACCAGCAACTCT
GACGACCACCTGCTGAAAAACATCGAGCTGTTTGACAAGCTCTCCCTGCGCTTCAACGGCCCGCTGCTCTTCATC
AAGGATGTCAATTGGTGACGAGATCTGCTGCTGGTCTTTTATGGCCAGGGCCGTAAGCTGGCAGAGGTGTGCTGT
ACCTCCATCGTGTATGCCACGGAGAAGAAGCAGACCAAGGTGGAATTCAGAGGGCCGAATCTATGAGGAGACA
CTCAACGTCCTACTCTATGAGACTCCCCGCGTCCCCGACAACCTCCTTGTGGAGGGCCACAAGCCGTAGCCGCAGC
CAGGCTTCCCCCAGTGAAGATGAGGAGACCTTTGAACTGCGGGACCGTGTCCGCCGCATCCACGTCAAGCGCTAC
AGCACTTACGATGACCGGCAGCTCGGCCACAGTCTACCCATCGCGACTGACCAGACCTCAGGGAGTCAGGGCA
CGGGAGGCCCTATCTCCCATCCTGTGGAACCCGCCCATTTGGCCACCCCATGCTGCTGCTGCTGGGTCTCTGCT
CTAGACCCAGAGGCATGACAGGCCCTGCTCAGAGGTGAGAGGGTCTGGGCAGAGGAGGGACCACATTCCCCTGC
CTTGCCCTGAGCACTTCTGGAGACTGCGTCTGTCTCTATCTGCTCACCATCACCTTCTGCCCCAGCGAGCTG
CTTCTGCTCCCTGGGGCATATGGACTGACCCACCTCCTGCTGAGAACCTTCCCCTAGGCCCTGTGCAGAAAGGCTA
CTGCCCCCTTAGGCCTCAGCTGGGGGAAAGGCAGTTCTGGTGCTGTAGAGGCCCTGGTGCAGAAAGTGGGACGTCT
TTTTCTTAAGGTGTTTAAAGCACAGGCTTGATAAGTTTGGTTTTTAAAAAATAATCTAGGAAATGAATAATTCTA
AATCTAGTAATGAGGAACTGAGCATTCTTTTGGCCTCCAGGGTGCCAAGACCCTACATATGACAGAACCCTTG
GCCCTTCTCCATGCCTGTGGGATCTGTTTCTTTAAAGCACTTTGTACTGTTATTACAGGAGTTGATAATCTCCTT
GACCATGTCTTTCTACCTAATCCCCACTTCCCTGCAGAATCAATCTGAGGGAGGGGATAAAGAGGAAGCAATA
AAAAAAAACATCCGACAGAGCAGCTCTGGCTTTGCAGCCTGGCCAGCAGCTCAGAGTGCACCGAGGAGGGAAGG
ATGGCTAAGCTGGGACCGGCAGTCTCAGAGGTGCTGTGAGAAAGGACATTTTACCCACATCATAGTCACA
TCACTGACTCCTAGGTCTAGCACGACTGCTCTTTGTGATTCTCTTGAGTACCCTTGGCTTCCAGCCATGCTGTCC
TCACATACGGTAAAGCCAAAGAGCTGTACATGGGCCAGAAAGTGTAGCCACGGCAGGAGACCGTGGAGCCCGT
GGGCACTGCATGGTGTGGCTGGCATGCCATCAGCTGAGGACAGCAAACCTCCAGCAGCCCTACAGAGGTGGC
ACATGCTTGGCCACACATCTACTCCCTGCCACACCATCTATGCTCTTGGTTGGTGTGGCTGGGATGGCGGTTT
TGCCAGTGGTGTCTCTGAGCGCGGGATGACAGGAGCAACCGAAGCACCTGAAGGCCTTCACTCCTTGTGGGT
AACTCAGCCATGGAGATGCCAAGCACTAGCCAGGAGGTGAGTTCCTCTTTAGGGCTTTGGTTTTTCATTCTTTT
GTTTGGCTTGGCCAAACCAGAATTACAGCTTATCTGAATTATTTTCAAAGGAATGCTGTGAGGGAGGGACTGTTT
TGCCAGCCTAACAAAGCAACGTAGCCACGTATAGTACCCACTTTCTGCTCTTTGGAGAGAACACAGGTTATCAAG
TTCATCTCTCTTGACTACTCTTATGATAGCTGATGCCACAGAGCCTATGGGCAAATGCCAGACCCAGGGTTAGAC
ACAAGGACCTGAAGTGACATGACGGCGGGACAGGGGAAATGTGACTTTCTAATTAGGCATTTTATGTTAGTCACA
GTCTTGAATGTATAAACAGCACTAAGACTCTCAGGTACAGGTACCTTGGTGATCAGCTACTAGTTCTTCCAGCCCT
CATTGAGGTAACAAGATAAAGACAAATCCACTTCTTTGGCCAAATTCAGGCTTTGGCTTTATGACTTTCCACAG
AGACTGGAATGCGTCAGCCTGAGACCACTGGCCTATTTTCTCAGCTGCCCTCTTGAGGTCTTTAACACTCAAAT
TCCCAGCTCCCCACTGAGGTGTTGTGATGCTTGGCTTTTGACCTCCCCATCCCCTTAGTCCCTGCTTACTACTT
TGACATTACATCCTCAGTGTCTCAGTCTTTTTTGCCGAGAAAGCACAGTAGTCTGGGACTGGGCATTTATCTTC
TCTGACTGAAAATCTCTCCTTGGTCTTAAGGAAATACTAACATTGAACTCACTGACATGATCTTAGCTTCTTTA
ATCAGACTTTGTGACTTAAAGTTTGGGGTTTTCTTTGAAAGTTTCCAGCCCTATTAGAAAGCAACTCTTGGC
TGTGTGCAATTTTCAACTCCAAGCAGCCAGGGGTAAGTAAACAAAGTATGGATGAAGGTGAGATTTTCTGTCA
GTTTCTGAGAAACCTGGCAGCCTGCTGTAAACAACACAGGCCAGTATTGGGTTTTATTGAATTTGGTATGTGACC
AAGGTGCGCCTAAAGGATGGCGCAGGTCTGGGCAGGAAAGAAATTTTCTTTATCACATAACTGTAATATTTGG
TTGCTCAGCATAAGTGATGGAAGCAAACACTAATTTCTAATAAAATTGTGTTAAACTC

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FIGURE 4761

CCGCGGGTCGGGCTCTGTGTCAGCAGCCGGGCGGGCGCTCGGGCGGGACATGGCAGCCTGTACAGCCCGGCGGGC
CCTGGCCGTGGGCAGCCGCTGGTGGTCCCGGTGCTGACTGGGGCCCGGTGGCCAAGGCCGCTCTGTGCGGCGGC
CGGAGCTGGAGCCTTCTCGCCAGCGTCGACCACGACGACGCGGAGGCACCTCTCGTCCCGAAACCGACCAGAGGG
CAAAGTGTGGAGACAGTTGGTGTGTTTGAGGTGCCAAAACAGAATGGAAAATATGAGACCGGGCAGCTTTTCCCT
TCATAGCATTTTTGGCTACCGAGGTGTCTGCTGTTTCCCTGGCAGGCCAGACTGTATGACCGGGATGTGGCTTC
TGCAGCTCCAGAAAAAGCAGAGAACCCTGCTGGCCATGGCTCCAAGGAGGTGAAAGGCAAAACCTCACACTTACTA
TCAGGTGCTGATTGATGCTCGTGACTGCCCACATATATCTCAGAGATCTCAGACAGAAGCTGTGACCTTCTTGGC
TAACCATGATGACAGTCGGGCCCTCTATGCCATCCCAGGCTTGGACTATGTCAGCCATGAAGACATCCTCCCCTA
CACCTCCACTGATCAGGTTCCCATCCAACATGAACCTTTTGAAGATTTCTTCTGTATGACCAGACAAAAGCACC
TCCTTTTGTGGCTCGGGAGACGCTAAGGGCCTGGCAAGAGAAGAATCACCCCTGGCTGGAGCTCTCCGATGTTCA
TCGGGAAACAACCTGAGAACATACGTGTCACTGTCTATCCCTTCTACATGGGCATGAGGGAAGCCAGAAATCCCA
CGTGTACTGGTGGCGCTACTGTATCCGTTTGGAGAACCTTGACAGTGATGTGGTACAGCTCCGGGAGCGGCACTG
GAGGATATTAGTCTCTCTGGCACCTTGGAGACAGTGCGAGGCCGAGGGGTAGTGGGCAGGGAACCAAGTGTATC
CAAGGAGCAGCCTGCGTTCCAGTATAGCAGCCACGTCTCACTGCAGGCTTCCAGTGGGCACATGTGGGGCACGTT
CCGCTTTGAAGACCTGATGGCTCCCACTTTGATGTTCCGATTCTCCCTTCTCCCTGGAAAGCAATAAAGATGA
GAAGACACCACCCTCAGGCCTTCACTGGTAGGCCAGCTGAGGCCCAAGTGCCAGGCTTGGTCACCGGGAAGAA
CAACTCTCATCCCACAATTGCTGCAGAACTCTTCTCTCCCATCATGGGCCACAGTGGGTCTCTTAATTTGATTG
TGGGGTTCTTTTGTGGGGAGGGGTGGTATAACTTTCTTCAGAAGACCCATGTGGGACACCTCCAAGGCTGGCC
TCCTCATAAGCCCTGCCTACACCATGTTCCAGTAAACCTCTCCACCAAGGAACCTGTGTTCACTGCCACAGGCCT
GGAGGAGTTTCTGGCCTGTACAGTGAGGTTTGATCAGTAAACCAAGTGCACGCTTGGCCACCTTGCCATTTCTG
CTCCCAGAGTCTCAGGCTCCCCTTCTGACCCAGTGTCGCGCCCTGACTGCTTTCTTTGCTGCCCTTCCAGGGAGC
TGCCCCCCTGGTAGGGCATGTGCCTGTTTCCCTCTCAGCCTGGAGGCTGGCTGGACATCTCCTAGGGTCACTGTG
CCTCTCAGCTAGTTGGCGGGGGTGCTGGACTGGACTCTGTTCACCTTACCTTCTGCCAAATGCAGAGAGGGAGG
CCAGTGTGAGGGTCGGAGTGGCCTGGCTCTTAGCACTGACCGACCATTGCCATTTCTGGCCTCGCTAGGCCCAGG
AGAGGAGGGAGGCAAGCCAGTCGGGTTTCTGGAGCAATGGGTGTGCCAGCCCTCAGCATGACTCTGCCAAGCAT
CCAGACCACAAATGCAGGAATTTGGCTGAGGAGCAGCTTTAGGTATGGATTGATGACTAAGTCAAGCTACTTCTT
GAGCTTCTCTCAGATTTCCAAGAGCCAGAGATGAATTGTGCTGCATCTTGCCCCAATTCTTAGGATTTCTTTTCC
TCCGCCACTGCAGTGATTGTTAGAGGTAGTTTCTTGAATTAATATTAAATCACAGTTCAGCCCTGTAAAAAAA

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FIGURE 4762

MAACTARRALAVGSRWWSRSLTGARWPRPLCAAAGAGAFSPASTTTTTRRHLSSRNRPEGKVLETVGVFVFPKQNG
KYETGQLFLHSIFGYRGVVLFPWQARLYDRDVASAAPEKAENPAGHGSKEVKGKTHTYQVLIDARDCPHISQRS
QTEAVTFLANHDDSRALYAIPGLDYVSHEDILPYTSTDQVPIQHHELPERFLLYDQTKAPPFVARETLRAWQEKNH
PWLELSDVHRETTENIRVTVIPFYMGMREAQNSHVYWWRYCIRLENLSDVVQLRERHWRIFSLSGTLETVRGRG
VVGREPVLSEQPAFQYSSHVSLQASSGHMWGTFRFERPDGSHFDVRIPPFSLESNKDEKTPPSGLHW

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FIGURE 4763

CAATCATGGATCAATAGCTATGTTTGGAGAAGGAATTTGTGGCTGCTCCAGCTACTGGGCATTTTGTCTGGTCCA
GTTTCATGTAATCTCCCAACACCCCATGAAGCAAGGCTTTGTTAATCCTATTTTACTGAAAATGAACTAAGACTCA
GAGAGATAAAGCTGTTGCCCAATGAGCCTTCTTTCTGCCCTCCAGATCCACGGTGCTAATTCCCCTTCCGATGAC
CTAATGATTCTGAGCTTGGCAAAGGTCTTATCTCCAGCTCGCCCAGGCCAGTGTTCAGGAATGTGACCTTTG
CTGCAGCAGCCGCTGGAGGGGGCAGAGGGGATGGGCTGGAGGTTGAGCAAACAGAGCAGCAGAAAAGGCAGTTCC
TCTTCTCCAGTGCCCTCCTTCCCTGTCTCTGCCTCTCCCTCCCTTCCCTCAGGCATCAGAGCGGAGACTTCAGGGGA
GACCAGAGCCCAGCTTGCCAGGCACTGAGCTAGAAGCCCTGCCATGGCACCCCTGAGACCCCTTCTCATACTGGC
CCTGTCTGGCATGGGTTGCTCTGGCTGACCAAGAGTCATGCAAGGGCCGCTGCACTGAGGGCTTCAACGTGGACAA
GAAGTGCCAGTGTGACGAGCTCTGCTCTTACTACCAGAGCTGCTGCACAGACTATACGGCTGAGTGCAAGCCCCA
AGTGACTCGCGGGGATGTGTTCACTATGCCGGAGGATGAGTACACGGTCTATGACGATGGCGAGGAGAAAAACAA
TGCCACTGTCCATGAACAGGTGGGGGGCCCCCTCCCTGACCTCTGACCTCCAGGCCAGTCCAAAGGGAATCCTGA
GCAGACACCTGTTCTGAAACCTGAGGAAGAGGGCCCCCTGCGCCTGAGGTGGGCGCCTCTAAGCCTGAGGGGATAGA
CTCAAGGCCTGAGACCCCTTCATCCAGGGAGACCTCAGCCCCCAGCAGAGGAGGAGCTGTGCAGTGGGAAGCCCTT
CGACGCCTTCACCGACCTCAAGAACGGTTCCCTCTTTGCCTTCCGAGGGCAGTACTGCTATGAACTGGACGAAAA
GGCAGTGAGGCCTGGGTACCCCAAGCTCATCCGAGATGTCTGGGGCATCGAGGGCCCCATCGATGCCGCCTTCAC
CCGCATCAACTGTCAGGGGAAGACCTACCTCTTCAAGGGTAGTCAGTACTGGCGCTTTGAGGATGGTGTCTCTGGA
CCCTGATTACCCCGAAATATCTCTGACGGCTTCGATGGCATCCCGGACAACGTGGATGCAGCCTTGGCCCTCCC
TGCCCATAGCTACAGTGCCGGGAGCGGGTCTACTTCTTCAAGGGGAAACAGTACTGGGAGTACCAGTTCAGCA
CCAGCCCAGTCAGGAGGAGTGTGAAGGCAGCTCCCTGTGCGCTGTGTTTGAACACTTTGCCATGATGCAGCGGGA
CAGCTGGGAGGACATCTTCGAGCTTCTCTTCTGGGGCAGAACCTCTGCTGGTACCAGACAGCCCCAGTTCATTAG
CCGGGACTGGCACGGTGTGCCAGGGCAAGTGGACGCAGCCATGGCTGGCCGCATCTACATCTCAGGCATGGCACC
CCGCCCCCTCCTTGGCCAAGAAACAAAGGTTTAGGCATCGCAACCGCAAAGGCTACCGTTCAACAGAGGCCACAG
CCGTGGCCGCAACCAGAAGTCCCGCCGGCCATCCCGCGCCATGTGGCTGTCTTGTCTTCCAGTGAGGAGAGCAA
CTTGGGAGCCAACAACATATGATGACTACAGGATGGACTGGCTTGTGCCTGCCACCTGTGAACCCATCCAGAGTGT
CTTCTTCTTCTCTGGAGACAAGTACTACCGAGTCAATCTTCGCACACGGCGAGTGGACACTGTGGACCCTCCCTA
CCCACGCTCCATCGCTCAGTACTGGCTGGGCTGCCAGCTCCTGGCCATCTGTAGGAGTCAGAGCCCACATGGCC
GGGCCCTCTGTAGCTCCCTCCTCCCATCTCCTTCCCCCAGCCCAATAAAGGTCCCTTAGCCCCGAGTTTAAA

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FIGURE 4764

MAPLRPLLILALLAWVALADQESCKGRCTEGFNVDKKQCDELCSYYQSCCTDYTAECKPQVTRGDVFTMPED
TVYDDGEEKNNATVHEQVGGPSLTSDLQAQSKGNPEQTPVLKPEEEAPAPEVGASKPEGIDSRPETLHPGRPQPP
AEEELCSGKPFDAFTDLKNGSLFAFRGQYCYELDEKAVRPGYPKLIRDVWGIEGPIDAAFTRINCQGKTYLFGKS
QYWRFE
DGVLDPDYPRNISDGFDGIPDNVDAALALPAHSYSGRERVYFFKGKQYWEYQFQHQP
SQEECEGSSLSA
VFEHFAMMQRDSWEDIFELLFWGRTSAGTRQPQFISRDWHGVPGQVDAAMAGRIYISGMAPRPSLAKKQRF
RHRN
RKGYSQ
RGHSRGRNQNSRRPSRAMWLSLFSSEESNLGANNYDDYRMDWLVPATCEPIQSVFFFSGDKYYRVNLR
TRRVDTVDPFYPR
SIAQYWLGC
PAPGHL

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FIGURE 4765A

ACAGACGGCGGGTGAACATGGCGTCTCGACTTGGTCTGAGACGTGATAGGCCTGCCTTCTGGTTGAAGATGTGG
CGAGTGAAAAAACTGAGCCTCAGCCTGTGCGCTTCGCCCCAGACGGGAAAACCATCTATGAGAATCCTCTCCGT
GAACTTACCCTGCAGCCCCGGTGCCCTCACCAACTCTGGAAAAAGATCCCCCGCTTGCTCCTCGCTGACCCCATCA
CTGTGCAAGCTGGGGCTGCAGGAAGGCAGCAACAACCTCATCTCCAGTGGATTTTGTAAATAACAAGAGGACAGAC
TTATCTTCAGAACATTTTCAGTCATTCTCAAAGTGGCTAGAACTTGTGAGCATGAATCAGATGAGCAGCCTCTA
GATCCAATTCCCCAAATTAGCTCTACTCTAAACAGTCTGAGGAAGCAGTAGACCCACTGGGCAATTATATGGTT
AAAACCATCGTCTTGTACCATCTCCACTGGGGCAGCAACAAGACATGATATTTGAGGCCCGTTTTAGATACCATG
GCAGAGACAAAAGCATATCTTTAAATGGACCTTTGAGAACAGACGATCTGGTGAGAGAGGAGGTGGCACCCCTGC
ATGGGAGACAGGTTTTGAGAAAGTTGCTGCTGTATCTGAGAAACCTATCTTTTCAGGAATCTCCGTCCCATCTCTTA
GAGGAGTCTCCACCAAATCCCTGTTCTGAACAACCTACATTGCTCCAAGGAAAGCCTGAGCAGTAGAACTGAGGCT
GTGCGTGAGGACTTAGTACCTTCTGAAAGTAACGCCTTCTTGCCCTTCCTCTGTTCTCTGGCTTTCCCTTCAACT
GCCTTGGCAGCAGATTTCCGTGTCAATCATGTGGACCCAGAGGAGGAAATTGTAGAGCATGGAGCTATGGAGGAA
AGAGAAATGAGGTTTTCCACACATCCTAAGGAGTCTGAAACAGAAGATCAAGCACTTGTCTCAAGTGTGGAAGAT
ATTCTGTCCACATGCCTGACACCAAATCTAGTAGAAATGGAATCCCAAGAAGCTCCAGGCCCAGCAGTAGAAGAT
GTTGGTAGGATTTCTGGCTCTGATACAGAGTCTTGATGTCCCCACTGGCCTGGCTGGAAAAAGGTGTAAATACC
TCCGTATGCTGGAAAAATCTCCGCCAAAGCTTATCCCTTCCCTCGATGCTTCGGGATGCTGCAATTGGCACTACC
CCTTCTCTACTTGCTCGGTGGGGACTTGGTTTACTCCTTCAGCACCACAGGAAAAGAGTACAAACACATCCCAG
ACAGGCCTGGTTGGCACCAAGCACAGTACTTCTGAGACAGAGCAGCTCCTGTGTGGCCGGCCTCCAGATCTGACT
GCCTTGTCTCGACATGACTTGAAGATAACCTGCTGAGCTCTCTTGTCTATTCTGGAGGTTCTCTCCCGCCAGCTT
CGGGACTGGAAGAGCCAGCTGGCTGTCCCTCACCCAGAAACCCAGGACAGTAGCACACAGACTGACACATCTCAC
AGTGGGATAACTAATAAACTTCAGCATCTTAAGGAGAGCCATGAGATGGGACAGGCCCTACAGCAGGCCAGAAAT
GTCATGCAATCATGGGTGCTTATCTCTAAAGAGCTGATATCCTTGCTTCACCTATCCCTGTTGCAATTTAGAAGAA
GATAAGACTACTGTGAGTCAGGAGTCTCGGCGTGCAGAAACATTGGTCTGTTGCTGTTTTGATTGCTGAAGAAA
TTGAGGGCAAAGCTCCAGAGCCTCAAAGCAGAAAGGAGGAGGACAGGACAGAGAGGAAATGGCTCTCAGAGGC
AAGGATGCGGCAGAGATAGTGTGGAGGCTTTCTGTGCACAGCCAGCCAGCGCATCAGCCAGCTGGAACAGGAC
CTAGCATCCATGCGGGAATTCAGAGGCCTTCTGAAGGATGCCAGACCCAACTGGTAGGGCTTCATGCCAACAA
GAAGAGCTGGTTTCAGCAGACAGTGAGTCTTCTTCTACCTTGCAACAAGACTGGAGGTCCATGCAACTGGATTAT
ACAACATGGACAGCTTTGCTGAGTCGGTCCCGACAACCTCACAGAGAACTCACAGTCAAGAGCCAGCAAGCCCTG
CAGGAACGTGATGTGGCAATTGAGGAAAAGCAGGAGGTTTCTAGGGTGCTGGAACAAGTCTCTGCCAGTTAGAG
GAGTGCAAGGCCAAACAGAACTGAGGATTGGAACAGTCTGCTAGCAACAGATCTCCGGGCTCAGTTGCAG
ATTCTGGCCAAACATGGACAGCCAGCTAAAAGAGCTACAGAGTCAGCATACCCATTGTGCCAGGACCTGGCTATG
AAGGATGAGTTACTCTGCCAGCTTACCCAGAGCAATGAGGAGCAGGCTGCTCAXXXXXXXXXXXGAAGAGATGGCA
CTAAAACACATGCAGGCAGAACTGCAGCAGCAACAAGCTGTCTGGCCAAAGAGGTGCGGGACCTGAAAGAGACC
TTGAGATTTGCAGACCAGGAGAATCAGGTTGCTCACCTGGAGCTGGGTGAGTTGAGTGTCAATTGAAAACCACA
CTGGAAGTGCTCCGGGAGCGCAGCTTGCAGTGTGAGAACCTCAAGGACACTGTAGAGAACCTAACGGCTAAACTG
GCCAGCACCATAGCAGATAACCAGGAGCAAGATCTGGAGAAAACACGGCAGTACTCTCAAAGCTAGGGCTGCTG
ACTGAGCAACTACAGAGCCTGACTCTCTTTCTACAGACAAAACCTAAAGGAGAAGACTGAACAAGAGACCCTTCTG
CTGAGTACAGCCTGTCTCCCACCCAGGAACACCCTCTGCCTAATGACAGGACCTTCCTGGGAAGCATCTTGACA
GCAGTGGCAGATGAAGAGCCAGAACTCAACTCCTGTGCCCTTGCTTGGAAGTGACAAGAGTGCTTTACCCGAGTA
GCATCAATGGTTTTCCCTTCAGCCCGCAGAGACCCAGGCATGGAGGAGAGCCTGGCAGAAATGAGTATTATGACT
ACTGAGCTTCAGAGTCTTTGTTCCCTGCTACAAGAGTCTAAAGAAGAAGCCATCAGGACTCTGCAGCGAAAAATT
TGTGAGCTGCAAGCTAGGCTGCAGGCCCAGGAAGAAGCATCAGGAAGTCCAGAAGGCAAAGAAGCAGACATA
GAGAAGCTGAACCAGGCCTTGTGCTTGCCTACAAGAATGAAAAGGAGCTCCAGGAAGTGATACAGCAGCAGAAAT
GAGAAGATCCTAGAACAGATAGACAAGAGTGGCGAGCTCATAAGCCTTAGAGAGGAGGTGACCCACCTTACCCGC
TCACTTCGGCGTGCAGGAGACAGAGACCAAAGTGCTCCAGGAGGCCCTGGCAGGCCAGCTGGACTCCAAGTCCAG
CCTATGGCCACCAATTGGATCCAGGAGAAAAGTGTGGCTCTCTCAGGAGGTGGACAACTGAGAGTGATGTTCCTG
GAGATGAAAAATGAGAAGGAAAACTCATGATCAAGTTCCAGAGCCATAGAAATATCCTAGAGGAGAACCTTCGG
CGCTCTGACAAGGAGTTAGAAAACTAGATGACATTGTTTCAGCATATTTATAAGACCCTGCTCTCTATTCCAGAG

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FIGURE 4765B

GTGGTGAGGGGATGCAAAGAACTACAGGGATTGCTGGAATTTCTGAGCTAAGAAACTGAAAGCCAGAATCTGCTT
CACCTCTTTTTACCTGCAATACCCCCTTACCCCAATACCAAGACCAACTGGCATAGAGCCAAGTGAATAAATGC
TATTAAATAAAGTGTATTTAATG

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FIGURE 4766

MWRVKKLSLSLSPSPQTGKPSMRTPLELTLQPGALTNSGKRSPACSSSLTPSLCKLGLQEGSNSSPVDFVNNKR
TDLSEHFSHSSKWLETCQHESEDEQPLDPIQIISSTPKTSEEAVDPLGNMVKTIIVLVPSPGLGQQQDMIFEARLD
TMAETNSISLNGPLRTDDLVREEVAPCMGDRFSEVAAVSEKPIFQESPSHLLSESPNPCSEQLHCSKESLSSRT
EAVREDLVPSESNAFLPSSVLWLSPTALAADFRVNHVDPEEEIVEHGAMEEREMRFPHPKESETEDQALVSSV
EDILSTCLTPNLVEMESQEAPGPAVEDVGRILGSDTESWMSPLAWLEKGVNTSVMLENLRLQSLSLPSMLRDAAIG
TTPFSTCSVGTWFTPSAPQEKSTNTSQTGLVGTKHSTSETEQLLCGRPPDLTALSRHDLEDNLLSSLVILEVLSR
QLRDWKSQALVPHPETQDSSTQTDTSHTSGITNKLQHLKESHEMGQALQQARNVMQSWVLISKELISLLHLSLLHL
EEDKTTVSQESRRAETLVCCCFDLLKKLRKQLSLKAEREEARHREEMALRGKDAAEIVLEAFCAHASQRISQLE
QDLASMREFRGLLKDAQTQLVGLHAKQEELVQQTIVSLTSTLQDDWRSMQLDYTTWTALLSRSRQLTEKLTVKSQQ
ALQERDVAIEEKQEVSRVLEQVSAQLEECKGQTEQLELENSRLATDLRAQLQILANMDSQLKELQSQHHTCAQDL
AMKDELLCQLTQSNEEQAAQWQKEEMALKHMQAELQQQQAVALAKEVRDLKETLEFADQENQVAHLELGGVEQCQLK
TTLEVLRRERSLQCENLKDTVENLTAKLASTIADNQEQLDLEKTRQYSQKLGLLLEQLQSLTLFLQTKLKEKTEQET
LLLSTACPPTQEHPLPNDRTFLGSILTAVADEEPESTPVPLLGSDKSAFTRVASMVSLQPAETPGMEESLAEMSI
MTTELQSLCSLLQESKEEAIRTLQKICELQARLQAEQEQHVEVQKAKEADIEKLNQALCLRYKNEKELQEVIOQ
QNEKILEQIDKSGELISLREEVTHLTRSLRRAETETKVLQEALAGQLDSNCQPMATNWIQEKVWLSQEVDKLRVM
FLEMKNEKEKLMIKFQSHRNILEENLRSDKELEKLDDIVQHIYKTLLSIPEVVRGCKELQGLLEFLS

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FIGURE 4767

CCTTTGCCCTTTGAGGCTCTGTGGCTGTGGGGCTGAGTGGCATCATGGCGGCTCAGAAAGATCTCTGGGACGCCAT
TGTGATTGGGGCGGGGATCCAGGGCTGCTTCACTGCATACCACCTGGCCAAACACAGGAAGAGGATCCTCCTGCT
GGAGCAGTTCTTTCTACACACTCCCGAGGAAGCTCCCATGGACAAAGCCGGATAATCCGAAAGGCGTACCTGGA
AGACTTTTACACCCGGATGATGCATGAGTGCTATCAGATATGGGCCCAGCTGGAGCACGAGGCTGGAACCCAATT
GCACAGGCAGACTGGATTACTGTGCTGGGAATGAAAGAGAATCAAGAATTAAAGACAATCCAGGCCAATCTGTC
GAGGCAGAGGGTAGAACACCAGTGCTCTTTCATCTGAGGAAGTGAAGCAACGTTTCCCAAATATTTCGGTTGCCAG
GGGAGAAGTGGGGCTCTTGGACAATTCCGGAGGAGTTATCTATGCATATAAGGCCCTCAGAGCCCTGCAGGATGC
AATTCGACAGCTAGGAGGCATAGTGCCTGACGGAGAGAAGGTGGTGGAGATAAACCAGGGCTACTGGTCACGGT
GAAAACCACCTCCAGGAGCTACCAAGCTAAGAGCTTGGTTCATCACAGCAGGTCCTTGGACCAACCAGCTCCTCCG
TCCCCTGGGCATTGAGATGCCTCTCCAGACCCTGCGGATCAACGTGTGTTACTGGCGAGAGATGGTTCCTGGGAG
CTATGGTGTGTCCAGGCCCTTTCGTGCTTCTGTGGCTGGGCTTGTGTCCCCACCACATCTACGGACTGCCAC
AGGAGAGTACCCAGGGCTGATGAAGGTCAGCTATCACACCGCAACCACGCAGACCCTGAGGAGCGGGACTGCC
CACAGCACGCACAGACATCGGAGACGTCCAGATCCTGAGCAGCTTTGTCAGAGATCACTTACCTGATCTGAAGCC
CGAGCCTGCTGTCATTGAGAGCTGCATGTACACGAATACCCCTGATGAGCAGTTTATTCTCGATCGCCACCCAAA
GTATGACAACATTGTCAATTGGTGCTGGATTCTCTGGGCACGGGTTCAAGCTGGCCCCTGTGGTGGGGAAGATCCT
GTATGAATTAAGCATGAAATTAACACCATCTTATGACTTGGCACCTTTTTCGAATCAGCCGTTTTCCCAAGCCTGGG
CAAAGCCCACCTTTGACCTCTGGCCAGAAGCCTCCCTTCTGTGCACAGGAGCCAGTTTACAGATGGAGAAGATG
TCTCAGATGAAGGGAGTGTCCTGAGATATCATCTTTTCTTCTGCCTCGCCTGAATCCCCATAAACACCAGAT
GATTGAGTCTACCTTCTTTCTTGGCCCGCTCCCTTTTTCTTCTGCCTCACTTGAATCCCCGTAACACCAGAC
GATTGAGTCTACCTTCTTTCTTGGCCACCTCCCCATTCAAACTACTTTCTCGCTCCCAGAAGGTTGATCAGAT
ATTCTACAATCACAGAGTAGCAAGGACGTTTGAGATGGGTATATCAGTAAGAAGAGGGCACAAGAAGTGGCTCTG
GAGACCAAAGCAGTTGTTAAAAATTCTCTTGTGTTGGGGCCGGGTGTGGTGGCTCACACCTGTAATCTCGGCACT
TTGGGGGGCTGAGACAGGCGGATCACCTGAGGCCAGGAATTCAAGACCAGCCTGGCCAACATGGTGAAACCCTAT
CTCCACTAAAAATACAAAATTAGCTGGGTGTGGTGGCGCATGCCTGTAATCCCAGCTACTTGGGAGACTGAGGCA
AGAGAATCACTTGAACCCGGGAGGTGGAGGTGGCAGTGAGCCGAGATTGCGCCATTGCACTCCAGCCTGGGCAA
AAGAGTGAGACTCTGTCTCAAAAAAAAAACAAAAACAAACCTCTTTGCTGGTATATTTGAAGAGCTTGGGA
TGGATTTGACTAAATCTGCCCCGAGGAGGGTGAACAAGGTGATCTCAGAGATCACTACTGCTCTTGGAGTTCCTT
CTCCTAAAGCTAAGGCCAGCCTCCATCACAATGCCATAAAATCTGGCTCGTCTTTGATGAACAATAAATATTT
GTTGAACAAATAAATAACTGCCCTGC

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FIGURE 4768

GCTTGACCACTATGCTATCATCAAGTTTCCGCTGACCACTGAGTCTGCCATGAAGAAGATAGAAGACAACAACAC
ACTTGTGTTTATTGTGGATGTTAAAGCCAACAAGCACCAGATTAAACAGGCTGTGAAGAAGCTGTATGACATTGA
TGTGGCCAAGGTCAACACCCTGATTTCGGCCTGATGGAGAGAAGAAGGCATATGTTGACTGGCTCCTGATTACGA
TGCTTTGGATGTTGCCAACAAAGTAAGTTTCCTTCCTACAAACCCCTTAATGCTCACCCCTTGGGTGCAAATGAT
GCATATGTTAGCGACCAAAGCCTGATCTTTGCTGATTAGTCATAATTAAGTACTGCACCCCTATCCTTGACAAA
CCTTATCCTCACATTCTCATTGCTTT

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FIGURE 4769

TCAGTGAAGGAGTCTTCAAGTGCCCTGAGGACCAGCTTCCTCTGGACTATGCCAAGATCTACCCAGACCCGGAGC
TGAAGTACAAGTATTGGGCCTGCCTATCCGCTGCATCCACAGTGAGGAGGGCTGCCGCTGGAGTGGGCCACTAC
GTCATCTACAGGGCCACCTGAATACCTGCAGCTTCAATGTCAATCCCTGCCCTAATCGCTGCCCCATGAAGCTGA
GCCGCCGTGATCTACCTGCACACTTGCAGCATGACTGCCCCAAGCGGCGCCTCAAGTGCGAGTTTTGTGGCTGTG
ACTTCAGTGGGGAGGCCTATGAGAGCCATGAGGGTATGTGCCCCCAGGAGAGTGTCTACTGTGAGAATAAGTGTG
GTGCCCCGATGATGCGGCGGCTGCTGGCCCAGCATGCCACCTCTGAGTGCCCCAAGCGCACTCAGCCCTGCACCT
ACTGCACCTAAGGAGTTCGTCTTTGACACCATCCAGAGCCACCAGTACCAGTGCCCCAAGGCTGCCTGTTGCCCTGCC
CCAACCAATGTGGTGTGGGCACTGTGGCTCGGGAGGACCTGCCAGGCCATCTGAAGGACAGCTGTAACACCGCCC
TGGTGCTCTGCCCATTCAAAGACTCCGGCTGCAAGCACAGGTGCCCTAAGCTGGCAATGGCACGGCATGTGGAGG
AGAGTGTGAAGCCACATCTGGCCATGATGTGTGCCCTGGTGAGCCGGCAACGGCAGGAGCTGCAGGAGCTTCGGC
GAGAGCTGGAGGAGCTATCAGTGGGCAGTGATGGCGTGCTCATCTGGAAGATTGGCAGCTATGGACGGCGGGCTAC
AGGAGGCCAAGGCCAAGCCCAACCTTGAGTGCTTCAGCCCAGCCTTCTACACACATAAGTATGGTTACAAGCTGC
AGGTGTCTGCATTCCTCAATGGCAATGGCAGTGGTGAGGGCACACACCTCTCACTGTACATTCGTGTGCTGCCTG
GTGCCCTTTGACAATCTCCTTGAGTGGCCCTTTGCCCGCCGTGTCACCTTCTCCCTGCTGGATCAGAGCGACCCTG
GGCTGGCTAAACCACAGCACGTCACTGAGACCTTCACCCCGACCCAAACTGGAAGAATTTCCAGAAGCCAGGCA
CGTGGCGGGGCTCCCTGGATGAGAGTTCTCTGGGCTTTGGTTATCCCAAGTTCATCTCCCACCAGGACATTGAA
AGCGAAACTATGTGCGGGATGATGCAGTCTTCATCCGTGTGCTGTGTAAGTGGCCCGGAAGATCCTCAGCTGAG
TGCAGGTGGGGTTTCGAGGGGAAAGGACGATGGGGCATGACCTCAGTCAGGCACTGGCTGAACTTGGAGAGGGGGC
CGGACCCCCGTGAGCTGCTTCTGCTGCCTAGGTTCTGTTACCCCATCCTCCCTCCCCAGCCACCACCTCAGGT
GCCTCCAATTGGTGCTTCAGCCCTGGCCCCCTGTGGGGAACAGGTCTTGGGGTCATGAAGGGCTGGAAACAAGTGA
CCCCAGGGCCTGTCTCCCTTCTTGGGTAGGGCAGACATGCCTTGGTGCCGGTCACACTCTACACGGACTGAGGTG
CCTGCTCAGGTGCTATGTCCCAAGAGCCATAAGGGGTGGGAATTGGGGAGGGAGAAAGGGTAGTTCAAAGAGTC
TGTCTTGAGATCTGATTTTTTCCCCCTTTACCTAGCTGTGCCCCCTCTGGTTATTTATTTCTTAGTGCCAGGAG
GGCACAGCAGGGGAGCCCTGATTTTTAATAAATCCGGAATTGTATTTATT

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FIGURE 4770

MPGFDYKFLEKPKRRLLCPLCGKPMREPVQVSTCGHRFCDTCLQEFLSEGVFKCPEDQLPLDYAKIYPDPELEVQ
VLGLPIRCIHSEEGCRWSGPLRHLQGHLNTCSFNVI PCPNRCPMKLSRRDLPAHLQHDCPKRRLKCEFCGCD FSG
EAYESHEGMCPQESVYCENKCGARMRRLLAQHATSECPKRTQPCTYCXLXXSSSLTPSRATSTSAQGCLLPAPT
NVVWALWLGRTCQAI

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FIGURE 4771

GAGACTCGCCCGGCTCAACCCCGACGTCCGCGCCCCGGCCGCCTGTTGGCCATGGCGGGCCTGGGCCTGGGCTCC
GCCGTTCCCGTGTGGCTGGCCGAGGACGACCTCGGCTGCATCATCTGCCAGGGGCTGCTGGACTGGCCCGCCACG
CTGCCCTGCGGCCACAGCTTCTGCCGCCACTGCCTGGAGGCCCTGTGGGGCGCCCCGCGACGCCCCGCCGCTGGGCC
TGCCCCACTTGCCGCCAGGGCGCCGCGCAGCAGCCGCACCTGCGGAAGAACACGCTACTGCAGGACCTGGCCGAC
AAGTACCGCCGCGCCGCACGCGAGATACAGGCGGGCTCCGACCCCTGCCCACTGCCCTGCCCGGGCTCCAGTTCC
CTCTCCAGCGCGGCCGCGAGGCCCGCGCGCCCGGAAGTGCAGCGGGTGGCAGTAGAGAAGAGCATCACAGAA
GTTGCTCAGGAGCTGACAGAGCTGGTGGAACATCTTGTAGACATTGTGAGAAGCCTGCAGAATCAGAGGCCCTTA
TCAGAATCTGGACCAGACAACGAAGTGAAGCATCCTGGGCAAGGAGAAGTCTTGAAGCCCCGTCTTCTCTCAT
GCCCATTTGCTGACCAGAGCCACCCTGCACTCAGGAGAGCTTCTCGGTTTGCTCAGTGGGCCATCCATCCAACCT
TTAACTTGAAGAGCCTTTCTTGCAGCCTGGAGGTGTCCAAGGATTCCCGTACAGTGACTGTGTCTCACCGCCAC
AACCTTATCGCTGGAGCTGTGAGAGGTTTTCTACCAGCCAGGTCTTATGTTCCAGGCCCTGTCTTCTGGAAGC
ATTACTGGGAAGTGGACACTAGGAATTGCAGCCACTGGGCAGTTGGGGTGGCTTCTGGGAGATGAGCCGCGACC
AGGTCCTGGGAAGGACTATGGACTCTTGTGTGTGGAATGGAAGGGGACTAGCCAGCTCTCTGCATGGCACATGG
TCAAGGAAACTGTCTTGGCTCAGACAGACCTGGGGTGGTGGGCATCTGGCTGAACCTTGAGGAGGGAAAGCTTG
CCTTCTATTTCAGTGGACAATCAGGAGAAGCTTCTGTATGAGTGTACCATCTCTGCCTCCTCTCCTTTGTACCCTG
CCTTCTGGCTGTATGGCTTACATCCTGGAAATTACCTGATAATAAAGCAAGTAAAGGTGTAAGGTTTCTAAGGG
ATTACAACACAGTGGTTTTCTTGGTCTCTCTCCCTGTCAATCAGGGTAGTAACTTGACTTAAGAATACCACTT
TTTAGAAAAATTACGATAGAGATGGGATCTCACTAGGTTGCCAGGCTGGTGTGCAATTCTGGTCTCAAGCAGT
CCTCCACCTCAGCCTCCCAAGGTGCTGGGATTACAGGTGTGAGCCACCACACCTGGCCAAGAATACCACTTTG
AAGTTAATCCTTTTGTGTGATACAGGATGAACCTTGGGATGTTTGAACCCTGGACATTCCAAATAAAGAAATAGGCC
CCTGCCTGGCTCCTGGGAGATAACCTCTAAGCCATTAGAATATCTTGCTGATAAGAGTGTGTTTGTGTACCTGT
GGGCCTTGGGCCATGCAGTATCAGCTTGACCTTGCAAGGTCAAGCTGAGGAGACTAAGTTAGCCATGTGGGCAGT
GAAGCATGCCAATGTGATCAATCCCTAGTAAAGCCCTGGACACCTAGGCATGGGTGAGCTACTCTGGTTGGTAA
TACTCTGTGCACACATCATTGTAGCCACACATCATTGCTGGGAGAATTAAAGCATTATCCTGAAGACTCTGCCAGG
AGAGGATAATTGGAAGTTCTCTTGGACCTTACCTTATGTGCCTTCTTTCATTGCTGATTTTAACTGTATCCTTT
CACTGTAATAAACTGTAAGTATGAGTGCAA

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FIGURE 4772

MAGLGLGSAVPVWLAEDDLGCIICQGLLDWPATLPCGHSFCRHCLEALWGARDARRWACPTCRQGAAQQPHLRKN
TLLQDLADKYRRAAREIQAGSDPAHCPCPGSSSLSSAAARPRRRPELQRVAVEKSITEVAQELTELVEHLVDIVR
SLQNQRPLSESGPDNELSILGKENSWKPRLPPhAHCLTRATLHSGELLGLLSGPSIQPLT

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FIGURE 4773A

AGGTGGA AAAA ACTTGTGAAATATTTGGATCCCAACGACCTGGGGAGAATCAACTTCAAGGACTTTTGCCGGGGGG
TGTTCCGCCATGAAAGGGTGCGAGGAGCTGCTGAAGGATGTGCTGTCTGGTGGAGAGCGCGGGGACGCTGCCGTGCC
CGCCAGAGATCCCAGACTGCGTGGAGCAGGGCAGCGAGGTACAGGCCCCACCTTTGCTGATGGCGAGCTCATCC
CCAGGGAACCCGGCTTTTTTCCCCGAGGACGAGGAGGAGGCTATGACGCTGGCGCCACCTGAGGGCCCCCAGGAGT
TGTACACAGACAGCCCCATGGAGAGCACTCAGAGCCTGGAGGGGTCTGTCTGGGAGTCTTCCGAGAAAGGACGGGG
GACTTGGGGGCTGTTTTCTGCCAGAAGACAAGTCCCTGGTCCACACTCCATCCATGACGACCTCAGACCTTTCTA
CACACTCCACCACCTCGCTCATCAGCAATGAGGAGCAGTTTGAAGACTATGGGGAGGGTGACGATGTGGACTGTG
CCCCCAGCAGCCCTTGCCCCGATGATGAGACCAGGACCAACGCTCTACTCGGACCTGGGGTCTTCGGTGTCTTCCA
GTGCGGGGCAGACGCCTAGGAAAATGCGGCACGTGTACAACAGCGAATTGCTAGATGTTTACTGCTCTCAATGCT
GCAAGAAAATCAACCTGCTCAATGACTTGGAAGCCCGACTGAAAACCTGAAGGCCAACAGCCCCAACCGAAAGA
TCTCCAGCACGGCCTTTGGACGGCAGCTCATGCACAGCAGCAACTTCAGCAGCAGCAATGGCAGCACCGAAGACC
TGTTCCGGGACAGCATTGACTCTTGCGACAATGACATCACAGAGAAGGTAAGCTTCCTGGAAAAGAAGGTGACAG
AGCTGGAGAATGACAGCCTGACCAATGGGGACCTGAAGAGCAAGCTGAAGCAAGAGAACACACAGCTGGTGCACA
GGGTGCATGAGCTGGAGGAGATGGTGAAGGATCAGGAGACCACGGCCGAGCAGGCTCTGGAGGAGGAGGCGCGGC
GCCACCGCGAGGCCTACGGCAAGCTGGAGAGGGAGAAGGCTACCGAGGTGGAGCTGCTCAATGCCAGGGTGCAGC
AGTTGGAGGAAGAAAATACAGAGCTTAGAACAACAGTGACTCGGCTCAAGTCTCAAACAGAGAACTGGATGAGG
AGCGGCAGCGCATGTCTGACCGTCTGGAGGACACCAGCCTGCGGCTCAAAGATGAGATGGACCTGTACAAGCGCA
TGATGGACAAGCTGCGACAGAACCGCCTTGAGTTCCAGAAGGAGCGGGAGGCGACGCAGGAGCTCATCGAGGACT
TGCGGAAGGAGCTGGAGCACCTGCAGATGTACAAGCTGGACTGCGAGCGGCCAGGCAGGGGGCCGAGTGCCCTCT
CTGGCCTAGGCGAGTTCAATGCCAGGGCCCGGAGGTGGAGCTCGAGCACGAGGTCAAGCGGCTCAAGCAGGAGA
ATTATAAGCTGCGGGATCAGAACGACGACTTGAATGGGCAGATTTTGAGCCTCAGCCTCTACGAAGCAAAAAACC
TCTTTGCTGCCCAGACTAAAGCCCAGTCTCTGGCTGCGGAGATAGACACCGCCTCGCGCGATGAGCTAATGGAAG
CCCTGAAGGAGCAGGAGGAGATCAACTTCCGGCTGAGGCAGTACATGGACAAGATTATCCTCGCCATCCTGGACC
ACAATCCCTCCATCCTCGAGATCAAACTAAGGCACGGGGCTGGCTGCAGAGCAGCCTTAGGACCCTGGGACCA
AGGGCAGACCCTGCCCCAAGGATGCAGGCCTAAGCCGGGCCTCACACTCACACTGTAAATGTCTCTTGCCACCA
TGCGTTACGTGTACCCGTGTATATGTGGGGAGGCTGTGCACACGAGCGAGGGGTGAGTGGCCGTGGCTGTGGGCA
GCATCCACACGGTTAGCCGTGCATGCACCTTTGTGGCCCTTTGCAAGGGGCAGAGGGTACTGGAAGTGGGAGGAG
GCAAGGTCTGCTATCAGGAGTTACTGTAAAAACAAGAACTGGAAGCTCGTGTTCGGTACTGGGTAAATGATT
CTACCTCTGGGGATAAGGATTACATTCGCTCTAGTACGATGGGCTCTTTCACCCCACTCCTAGTCCCCTTGGA
GTGGGACCAAAATGTGATCTTTCTTAGGAGTTTGAATGCCCCATATTTGTGTCTCGCCAGCTCTTGGCCACC
TTTCAAGCCCCAGTGTCAAGCTCAGAGAGGATGAAGGGGCATCTGGAGGGTCCATGAGATGGGGCCCTCACCA
ATGCTTGGCCACCGGCCAGCAGCCCTCTGTGATGTGTGTGCAGAGTGAACAGAGGACTCAGGTTTCATAGCAGC
TAGTGCGGGGCATCCTCATCTGTACCTATAGAGTTCTGTGCATCTCCCATCCATGCTACCTACCTCCCGTTTC
TGTTTCAGTTTTAAGACAATGAAGCAGCATTACTGCGTCAATTGTAACATGAAGGGATAAAATGAAGGAGAAGG
AGGGTTTTGGGATGGGTGTCTAAGGCAGGAGTTGACATCGGGCAACCAAGAAATGAGTTTTGGGGAGGAACACAA
CTCCCATCCCAGTCAGTTTTCTTCCATGGCTGCATCTTAAGATGGATGCACGGAGAAACCGTCTGCCTGGCTCC
CTGTCTTCATTCTCCACGCAGCCTGGTGATGGCAGGCCTGGGTTTGGATTTCAGAACTCTAGCTCCGGGCTCCAC
TCGTGTGGCAGCAAGACTGCTTTCGTTCCAGCGTTTAGAAACACACCTGTATTGATTCTCAGCCAGGGGAGCACT
CGCTGCACTGGTGGGAGGCGGTTGGGAAAGTTGCAGGAAAACCTTAGTCTTCCATCCTTCTGACCCATGGTGGAA
ATTACACCATGGATTTTTAATGGATCTTTGTTCTAGGCAGCTGGGAATAGACATGGTACTTACCTTAGAGTTTT
CCAATTTATCTCAATTTTATATGGCTTGTGATTCAATTTCTTAATCCAAATATATATAAAGCTGTGTGGTCTTAT
TCTTCCCCCTGCAGTTTTCTTGCTTTCTTCAGCACATCTTATAGTATGAGAAGGAAGGTTTGGGCATGTTGGGAAG
GGCGGTGGAGGGGGAGTTGCAGAAAGAGAGGGCAGTGAGGGTGAGGAGAGGGGATCTGGGGACTTGGGTGTGACA
CCTGCTTGACAGAGGCAGGGCTGTGGCCAGGACCAACCTTCAATTCCATTCCAATCAGCCTTTGCATTTGTTGGA
TCTCGTGGCTTCTTTTTAATCTTTTGTGGGGATTAGTTTCATGCTGCACATAATGGGGTTGCACTGGTCTGACC
CAGGACTTTGGAGCCACCCACACTGGGAAGACTAGGCTAGGCAGTCGGTCTTCTAGGAGTTTCTCAGCCCCCTTAG
GACGCGGGTCTCCTTGGGCTCCCCAAGGGTCTGCGAAGAGGCAGTGGAAGAAGGCATGAGGAGAGGGTCTCTT
GAGAATTTGCCAATAGGAAGGAGTGGCCACGGCTGAAAGGAACAAGACAGATCCTGACATAGCTTTGGCCTGGGT

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FIGURE 4773B

GTTAGGTCAGAAGGAGTACTGGTGCGTGGGGGCCCTTACCCACAGGGTTGAGTATTTTATCTGTAAAATGTTATCTG
CCCTTTGGCTGCATTGGAATTTTCAGAGAAGGCTGCAGAGGCCTGGGTTACACAGCCTGAGTCACAACGTGGGAAG
GAATCTCTGCCACGGGAAAGGTGGGCGGAAGCAGCTGGCAGCCTGGGGCGTGCTTCAGGCTCCTCCCTCTAAGGG
GCGCCATGGGAACAGGCTCCGGAGGGAGCCGGCGTCTGAAAGGCCCCCGGGACCTGCTGCAGTGCCAGAGGGGCC
TCTGGAGCAGGCCCTGGCTTTTAAATGGGGGGCTGAATTCAGCTCACACACACCTCAAGTCCAACCTTACTTTCT
TCAGCCAGAATACATTTCTTGTAAAACCTGGCTTGTGCTTGGCTTTTAAAGATGGTGTATGTTTGTAAAAATAT
TCTTCTGGGCTCAAAAGCTAGCTTGAGGGGGCAGATGCCCCAGGTGTCCAGCTCCACAGCCCCTGGCAGATCCC
AGACCCCTTGGTGGCAGGTCCCAGAGCCTAGGTGGTAGGAGCTTGATCTTTGTTTCTGCCCTTACCCCTCAGTAG
TGGGGCTGCGAGGTAGTAGACAGGATGCCAGTTAAGTTTGAATTTTCAGATAGAAAATAATTTTAGAATAAATAT
GTTCTATCTAATACATGGGACAGATGTTATTTTTAGAGATAGGATCTTGCTCTGTTGCCAGGCTGGAGTGTAGT
GGTATGATCATAGCTCACCACAACCTTGAACCTCCAGGCTCAAGCGATCCTCCCGCCTTAACTGCCTGAGTAGCT
GGGACTACAGGCATGCACCACCACGCCAGCTAATTTTTCTTATTTTTTGTAGAGACAGGGTCTCACTGTGTTGC
CTCACTCGAGCTGCTGACCTCAAGTGATCCTCCACCTCAGCCTGCCAAAGCACTGGGATTACAGGCATGAGCCA
CCATGCCCTGGCCAGGACATATTTGAAATGGGGAGATTTTAAAAATCTGATGATTAGACTGAATCCTCAGACGTT
CTGGTTTGATTGTTGTGGGTGTAGCCCAGGCATGGGATTTTTTAAAGAGCTGCTCAGGTAATTCGAATTTAATTG
CGTGCCTACTTGGGTTTTTTGTTTGTATTTTGTATTTTGTCTAAACCTGGCAACCCTACCGAGTAGGGATTAGC
AGTAACTTATCTGAAATTTAGAGGTGTTTGGGGGTGGGGCGAGGGTTTCTGTAGTAGACTCAGATTTTACATGG
CCCTGAGCTGCCCTTGCCTTCAGTTGGAAGCCACGCAAAATGAACTGAACCAGGAGTGAGCTTCGTGTACATTAT
CTATTAGAAAAATGAAGTACCTTCTGGTTCAGCTAGTCCCTGTGCGTTGAGAGGCTTTAAGAACTTCTAGTAAAA
ATGTTTTTTTCTTTTAGCTTTGAATTGGCCAGAGTTTATCCTAGATTATTTTATTTTAAATTGGTAGAATTCCTT
GCGAACTGTCACAGAGAAATCCTTTTCATGACTTTATTTCTGACCTATTAAACATGAACAGGCCAGGCATGGT
GGCTCACGCCTGTAATCCTAGCACTTGGGAGGCAGTGGCAGGCGGATCACTTGAGCTCAGGAGTCCTAAACCAGC
CTGGGCAACATAGTGATACCTTGTCTCTACCAAAAAGTT

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FIGURE 4774

MKGCEEELKDVLSVESAGTLPCAPEIPDCVEQGSEVTGPTFADGELIPREPGFFPEDEEEAMTLAPPEGPQELYT
DSPMESTQSLEGSVGSPA EKDGGLGGLFLPEDKSLVHTPSMTTSDLSTHSTTSLISNEEQFEDYGE GDDVDCAPS
SPCPDDETRTNVYSDLGSSVSSSAGQTPRKMRHVYNSEL LDVYCSQCCKKINLLNDLEARLKNLKANS PNRKISS
TAFGRQLMHSSNFSSSNGSTEDLFRDSIDSCDNDITEKVSFLEKKVTELEND SLTNGDLKSKLKQENTQLVHRVH
ELEEMVKDQETTAEQALEEEEARRHREAYGKLEREKATEVELLNARVQQLEEEENTELRTTVTRLKSQTEKLDEERQ
RMSDRLED TSLRLKDEMDLYKRMDKLRQNRLEFQKEREATQELIEDLRKELEHLQMYKLCERPGRGRSASSGL
GEFNARAREVELEHEVKRLKQENYKLRDQND DLNGQILSLSLYEAKNLFAAQTKAQSLAAEIDTASRDELMEALK
EQEINFRLRQYMDKIILAILDHNPSILEIKH

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FIGURE 4775

GGCTGATTGGCGCTTCTGCGGCGGATCCTCGGGCGGGCAGCCGGGCGGGCGCGTCACGTGGCCACGGCGTCCAG
GGCGACCAGCCGCGGGCCGCAGGGCATGGACCTTCAGGCCGCCGGGGCCAGGCGCAGGGGGCCGCGGAGCCGTC
TCGGGGCCCGCCGCTGCCTAGCGCGCGGGGGCGCCCCCAGCCCGGAGGCTGGCTTTGCTACAGCTGACCACTC
CAGTCAGGAGAGAGAGACTGAGAAGGCTATGGATCGACTAGCCCGTGGAACACAGAGCATTCCTAATGACAGTCC
TGCCCGGGGTGAGGGCACCCATTCTGAAGAGGAAGGCTTTGCCATGGATGAGGAGGACTCTGATGGAGAACTGAA
TACCTGGGAGCTGTCAGAAGGGACAACTGTCCACCCAAGGAACAGCCTGGCGATCTTTTTAATGAGGACTGGGA
CTCGGAGTTGAAAGCAGATCAAGGGAATCCATATGATGCTGACGACATCCAGGAGAGCATTCTCAAGAGCTTAA
ACCTTGGGTGTGCTGTGCCCCACAAGGAGACATGATCTATGACCCAGCTGGCACCATCCGCCTCCACTGATACC
CTATTATTCCAAGATGGTCTTTGAAACAGGACAGTTTGACGATGCTGAAGATTTGAGTGTGGAGCTTTCTGCCTTG
TAGGTGGGCGGGCCTCCACGTCAAGATCTCTTTTCTGTCTTGGAGGTGAAAAGTCATATCTGAGAAAATGTTG
CAGTGACCCCTAGTCTGGGGTACACAGACCAGTGTTTCTTATTGACAGTGTTCAATAAGGCCCCGTCATTCTCGC
CAGTCTGTTGTTGTTCTTAATGGGCTCCTCCTTGAAATGTGTGTGTGTTGTGTCAAGAGGAGTTGTGTTCTTG
TAAATAAAGGTTAAAAAGAG

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FIGURE 4776

MDLQAAGAQAQGAAEPSRGPPLP SARGAPPSPEAGFATADHSSQERETEKAMDRLARGTQSIPNDSPARGEGTHS
EEEGFAMDEEDSDGELNTWELSEGTNCPKQPGDLFNEDWDSELKADQGNPYDADDIQESISQELKPWVCCAPQ
GDMIYDPSWHHPPLIPYYSKMVFETGQFDDAED

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FIGURE 4777

GAGGCGGAGCGGGGAACGAGGCCGTGCGCCATTTTGTGCTGCTTCCTGTGGGACGTGGTGGTAGCCGTTGGGT
GGGAAAGTGAGGGATTTTTGGCCTCGTTTCTCCTGCTTCTTTTCTCCTCCCTTTTACTTTGCCGGTAGAACACAG
TTATGGGTCGCAAGAAGAAGAAGCAGCTGAAGCCGTGGTGCTGGTATTGTAATAGAGATTTTGATGATGAGAAGA
TCCTTATTACGACCAAAAAAGCAAGCATTTTAAATGCCATATATGTCACAAGAAATTGTATACAGGACCTGGCT
TAGCTATTCAATTGCATGCAGGTACATAAAAGAAACAATAGATGCCGTACCAATGCAATACCTGGAAGAACAGACA
TAGAGTTGGAATATATGGTATGGAAGGTATTCCAGAAAAAGACATGGATGAAAGACGACGACTTCTTGAACAGA
AAACACAAGAAAGTCAAAAAAGCAACAAGATGATTCTGATGAATATGATGATGACGACTCTGCAGCCTCAA
CTTCATTTACGCCACAGCCTGTTCAACCTCAGCAAGGTTATATTCTCCAATGGCACAGCCAGGACTGCCACCAG
TACCAGGAGCACCAGGAATGCCTCCAGGCATACCTCCATTAATGCCAGGTGTTTCTCCTCTGATGCCAGGAATGC
CACCAGTTATGCCAGGCATGCCACCTGGATTGCATCATCAGAGAAAATACACCCAGTCATTTTGCGGTGAAAACA
TAATGATGCCAATGGGTGGAATGATGCCACCTGGACCAGGAATACCACTCTGATGCCTGGAATGCCACCAGGTA
TGCCCCCACCTGTTCCACGTCTGGAATTCCTCCAATGACTCAAGCACAGGCTGTTTCAGCGCCAGGTATTCTTA
ATAGACCACCTGCACCAACAGCAACTGTACCTGCCCCACAGCCTCCAGTTACTAAGCCTCTTTTCCCCAGTGCTG
GACAGATGGGGACACCTGTCACAAGCTCAAGTACAGCTTCATCCAATTCAGAAAGTCTGTCTGCATCTTCTAAAG
CTCTGTTTCCTAGCACAGCACAAGCTCAGGCAGCTGTCCAAGGACCTGTTGGTACAGATTTCAAACCCTTAAATA
GTACCCCTGCAACAACTACAGAACCCCCAAAGCCTACATTCCCTGCTTATACACAGTCTACAGCTTCAACAATA
GTACAACAAATAGTACTGCAGCTAAACCAGCGGCTTCAATAACAAGTAAGCCTGCTACACTTACAACAACCTAGTG
CAACCAGTAAGTTGATCCATCCAGATGAGGATATATCCCTGGAAGAGAGAAGGGCACAGTTACCTAAGTATCAAC
GTAATCTTCTCGGCCAGGACAGGCCCCCATCGGTAATCCACCAGTTGGACCAATTGGAGGTATGATGCCACCAC
AGCCAGGCATCCCACAGCAACAAGGAATGAGACCCCAATGCCACCTCATGGTCAGTATGGTGGTCATCATCAAG
GCATGCCAGGATACCTTCCTGGTGCTATGCCCCCGTATGGGCAGGGACCGCCAATGGTGCCCCCTTACCAGGGTG
GGCCTCCTCGACCTCCGATGGGAATGAGACCTCCTGTAATGTCGCAAGGTGGCCGTTACTGATCTTACTTCATCC
AGTCTAATAGGTTTGGAGATTAAACCTTTTCTCAACTTGTGCTGTTTATATAGCCAAGCTTCCGTCAATAAGGCT
TCATTGTGACTTTAACAACATTATCTTCCCACATACCAGGAACCTATTGGACATTTATTTTACATGGGAAAAATT
ATTTGGAATAATAAAGCAGGAACCTTTTCTGAAGTTGCAATTTATACTGTATGGCTTCTTTTTCATGTTTCATCT
AGGTTTTTTAGAAGTGAAGTATAGTAAATTTGGTTCGTTAAATTGTGAAGGCGCTGGAATTACATGAACATAACCAC
CCTAGTAAAGGCAAGTTCTGTAAGCTTACATTGCTATTTGTAAAGTTTGCCTTCACAGCATTTTACAGATGCTGTTG
GACTTCATGTCCCCAACCTAGCTTGGTGAGGGCTGTAAGTGTTCCTCAAGTACTTGTACATTGGAAGTCTGAATGT
GTAACAATATTTAATGTATTTAGAGTTCCTCATGTTGCAGGGTTTAAAGAAATCTGACCCACCAAGGTCATGTGAC
TTTTCTGTACTGTTAACTTCATTGTAATAAAATGAGAGAAAAATTTATGCCTTTTTTATTCATAACCCAGCTGTG
GACCACTGCCTGAAAGGTTTGTACAGATGCATGCCACAGTAGATGTCCACATAATAAAATTCATAGTTACCAATG
CA

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FIGURE 4778

ATGGCGGGCGGGCGGGTGGTGGAGTTCCAGAGAGCCCCAGTCTCTACTCAGCACCGACCGGGAGGCCTCCATCGAC
ATCCTCCACTCCATCGTGAAGCGTGACATTGAGGAAAACGATGAAGAGGCAGTGCAAGTCAAAGAGCAGAGCATC
CTGGAACTGGGATCTCTCCTGGCAAAGACTGGACAAGCTGCAGAGCTTGGAGGACTCCTGAAGTATGTACGACCC
TTCTTGAATTCCATCAGCAAGGCTAAAGCAGCTCGCCTGGTCCGATCTCTTCTTGATCTGTTTCTTGATATGGAA
GCAGCTACAGGGCAGGAGGTCGAGCTGTGTTTAGAGTCCATCGAATGGGCCAAGTCAGAGAAAAGAAGCTTTCTTA
CGCCAAGCTTTGGAGGCAAGACTGGTGTCTTTGTACTTTGATACCAAGAGGTACCAGGAAGCATTGCATTTGGGT
TCTCAGCTGCTGCGGGAGTTGAAAAAGATGGACGACAAAGCTCTTTTGGTGGAAGTACAGCTTTTAGAAAGCAAA
ACATACCATGCCCTGAGCAACCTGCCGAAAGCCCCGAGCTGCCTTAACTTCTGCTCGAACCACAGCAAATGCCATC
TACTGCCCCCTAAATTGCAGGCCACCTTGGACATGCAGTCGGGTATTATCCATGCAGCAGAAGAGAAGGACTGG
AAAACTGCGTACTCATACTTCTATGAGGCATTTGAGGGTTATGACTCCATCGACAGCCCCAAGGCCATCACATCT
CTGAAGTACATGTTGCTGTGCAAAATCATGCTCAACACCCCAGAAGATGTCCAGGCTTTGGTGAGCGGGAAGCTT
GCACTTCGGTATGCAGGGAGGCAGACAGAAGCATTAAATGCGTGGCTCAGGCTAGCAAGAACAGATCACTGGCA
GATTTTGAAGAGGCTCTGACAGATTACCGGGCAGAGCTCCGGGATGACCCAATCATCAGCACACACTTGGCCAAG
TTGTATGATAACTTACTAGAACAGAATCTGATCCGAGTCATTGAGCCTTTTCCAGAGTACAGATTGAACACATA
TCTAGTCTCATCAAATCTCCAAGGCCGACGTGGAAAGGAAATTATCACAGATGATTCTTGACAAGAAATTTTCAT
GGGATTTTGGACCAGGGGGAGGGTGTCTGATTATTTTCGATGAACCCCCAGTAGATAAACTTACGAAGCTGCT
CTGGAAACAATTGAGAACATGAGCAAAGTAGTGGATTCCCTCTACAACAAAGCCAAGAACTGACATAG

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FIGURE 4779

MAAAAVVEFQRAQSLLSTDREASIDILHSIVKRDIQENDEEAVQVKEQSILELGSLLAKTGQAAELGGLLKVVRP
FLNSISKAKAARLVRSLLDLFLDMEAATGQEVELCLESIEWAKSEKRTFLRQALEARLVSLYFDTKRYQEALHLG
SQLRELKKMDDKALLVEVQLLESKTYHALSNLPKARAALTSARTTANAIYCPPKLQATLDMQSGIIHAAEEKDW
KTAYSIFYEAFEGYDSIDSPKAITSLKYMLLCKIMLNTPEDVQALVSGKLALRYAGRQTEALKCVAQASKNRS
LA
DFEKALTDYRAELRDDPIISTHLAKLYDNLLEQNLIRVIEPFSRVQIEHISSLIKLSKADVERKLSQMILDKKFH
GILDQGEGLIIFDEPPVDKTYEAALETIQNMSKVVDSLYNKAKKLT

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FIGURE 4780

GGCAGGCCCCGCGCCCGCGCCCGGACTTTGCCATCGGCGGGGCAGTCGCGGGATGCGCCCGGGAGCCACAGCCTGA
GGCCCTCAGGTCTCTGCAGGTGTCGTGGAGGAACCTAGCACCTGCCATCCTCTTCCCAATTTGCCACTTCCAGC
AGCTTTAGCCCATGAGGAGGATGTGACCGGGACTGAGTCAGGAGCCCTCTGGAAGCATGGGAGACTGTGGTGATTG
TTGCCATAGGTGTCTTGCCACCATCTTTCTGGCTTCGTTTGCAGCCTTGGTGCTGGTTTTGCAGGCAGCGCTACT
GCCGGCCGCGAGACCTGCTGCAGCGCTATGATTCTAAGCCATTGTGGACCTCATTGGTGCCATGGAGACCCAGT
CTGAGCCCTCTGAGTTAGAACTGGACGATGTGCTTATCACCAACCCCCACATTGAGGCCATTCTGGAGAATGAAG
ACTGGATCGAAGATGCCTCGGGTCTCATGTCCCACTGCATTGCCATCTTGAAGATTTGTACACTCCGACAGAGA
AGCTTGTTGCCATGACAATGGGGCTCTGGGGCCAAGATGAAGACTTCAGCCAGTGTGACGACATCATTGTGGTG
CCAAGCGGATCAGCCCCAGGGTGGATGATGTTGTGAAGTCGATGTACCCTCCGTTGGACCCCCAACTCCTGGACG
CACGGACGACTGCCCTGCTCCTGTCTGTGTCAGTCACCTGGTGCTGGTGACAAGGAATGCCTGCCATCTGACGGGAG
GCCTGGACTGGATTGACCAGTCTCTGTGCGGCTGCTGAGGAGCGTTTGGAAGTCCTTCGAGAAGCAGCCCTAGCTT
CTGAGCCAGATAAAGGCCTCCCAGGCCCTGAAGGCTTCCTGCAGGAGCAGTCTGCAATTTTAGTGCCTACAGGCCA
GCAGCTAGCCATGAAGGCCCTGCCGCCATCCCTGGATGGCTCAGCTTAGCCTTCTACTTTTTCTATAGAGTTA
GTTGTTCTCCACGGCTGGAGAGTTCAGCTGTGTGTCATAGTAAAGCAGGAGATCCCGTCAGTTTATGCCTCTT
TTGCAGTTGCAAACTGTGGCTGGTGAGTGGCAGTCTAATACTACAGTTAGGGGAGATGCCATTCACTCTCTGCAA
GAGGAGTATTGAAAACCTGGTGGACTGTCAGCTTTATTTAGCTCACCTAGTGTTTTCAAGAAAATTGAGCCACCGT
CTAAGAAATCAAGAGGTTTCACATTAAAATTAGAATTTCTGGCCTCTCTCGATCGGTCAGAATGTGTGGCAATTC
TGATCTGCATTTTCAGAAGAGGACAATCAATTGAACTAAGTAGGGGTTTCTTCTTTTGGCAAGACTTGTACTCT
CTCACCTGGCCTGTTTCATTTATTTGTATTATCTGCCTGGTCCCTGAGGCGTCTGGGTCTCTCCTCTCCCTTGCA
GGTTTGGGTTTGAAGCTGAGGAACTACAAAGTTGATGATTCTTTTTATCTTTATGCCTGCAATTTACCTAGC
TACCCTAGGTGGATAGTAAATTTATACTTATGTTCCCTAAAAAAAAAAAAAAAAAAAAA

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FIGURE 4781

METVVIVAIGVLATIFLASFAALVLVCRQRYCRPRDLLQRYDSKPIVDLIGAMETQSEPSELEDDVVITNPHIE
AILENEDWIEDASGLMSHCIAILKICHTPTEKLVAMTMGSGAKMKTSASVSDIIVVAKRISPRVDDVVKSMYPPL
DPKLLDARTTALLSVSHLVLVTRNACHLTGGLDWIDQSLSAEERLEVLREAALASEPDKGLPGPEGFLQEQSA
I

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FIGURE 4782

ATGCTGAAGCTCACACCCTTGCCCTCCAAGATGAAGGTTTCTGCAGCGCTTCTGTGCCTGCTGCTCATGGCAGCC
ACTTTCAGCCCTCAGGGACTTGCTCAGCCAGATTTCAGTTTCCATTCCAATCACCTGCTGCTTTAACGTGATCAAT
AGGAAAATTCCTATCCAGAGGCTGGAGAGCTACACAAGAATCACCAACATCCAATGTCCCAAGGAAGCTGTGATC
TTCAAGACCCAACGGGGCAAGGAGGTCTGTGCTGACCCCAAGGAGAGATGGGTCAGGGATTCCATGAAGCATCTG
GACCAAATATTTCAAAATCTGAAGCCATTGA

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FIGURE 4783

MLKLTPLP SKMKVSAALLCLLLMAATFSPQGLAQPD SVSIPITCCFNVINRKIP IQRLESYTRITNIQCPKEAVI
FKTQRGKEVCADPKERWVRDSMKHLDQIFQNLKP

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FIGURE 4784

CTGGAACCCGGAAGCGGCAGCGCGGCGGACCCGGCGGGCGGGCTCTGGGCGCGGGAATCCCGGCGGATCCCGGG
CGGGCGGATGACCCCCAGCCCTACCCCTGGGTGCCGCTCCTCCTCTCTCCTTTCTCCTCCGGCAGCCAGCGCGCC
TGTGTCCTCTCTAGGAAGGGGTAGGGGAGGGGCGTCTGGAGAGGACCCCCGCGAATGCCACGTGACGTGCAGT
CCCCCTGGGGCTGTTCCGGCCTGCGGGGAACATGGGCGTGCTCAGGGTCTGGACTGTGCCCTGGCCTTACCGAGGA
GATGATCCAGCTTCTCAGGAGCCACAGGATCAAGACAGTGGTGGACCTGGTTTTCTGCAGACCTGGAAGAGGTAGC
TCAGAAATGTGGCTTGTCTTACAAGGCCCTGGTTGCCCTGAGGCGGGTGCTGCTGGCTCAGTTCTCGGCTTTCCC
CGTGAATGGCGCTGATCTCCACGAGGAACCTGAAGACCTCTACTGCCATCCTGTCCACTGGCATTGGCAGTCTTGA
TAAACTGCTTGATGCTGGTCTCTATACTGGAGAAGTGACTGAAATTGTAGGAGGCCAGGTAGCGGCAAACTCA
GGTATGTCTCTGTATGGCAGCAAATGTGGCCCATGGCCTGCAGCAAAACGTCTATATGTAGATTCCAATGGAGG
GCTGACAGCTTCCCGCCTCCTCCAGCTGCTTCAGGCTAAAACCCAGGATGAGGAGGAACAGGCAGAAGCTCTCCG
GAGGATCCAGGTGGTGATGCATTTGACATCTTCCAGATGCTGGATGTGCTGCAGGAGCTCCGAGGCAGTGTGGC
CCAGCAGGTGACTGGTTCTTCAGGAACCTGTGAAGGTGGTGGTTGTGGACTCGGTCACTGCGGTGGTTTCCCCACT
TCTGGGAGGTCAGCAGAGGGAAGGCTTGGCCTTGATGATGCAGCTGGCCCGAGAGCTGAAGACCTGGCCCGGGA
CCTTGGCATGGCAGTGGTGGTGACCAACCACATAACTCGAGACAGGGACAGCGGGAGGCTCAAACCTGCCCTCGG
ACGCTCCTGGAGCTTTGTGCCAGCACTCGGATTCTCCTGGACACCATCGAGGGAGCAGGAGCATCAGGCGGCCG
GCGCATGGCGTGTCTGGCCAAATCTTCCCGACAGCCAACAGGTTTCCAGGAGATGGTAGACATTGGGACCTGGGG
GACCTCAGAGCAGAGTGCCACATTACAGGGTGATCAGACATGACCTGTGCTGTTGTTTGGGAAACAGGGAAGCAT
TGGGGACCCCTCCCAACTTTTCTTCCAGTAACGCCTGCTGTTTACTGCCACCTGGCACTGGTGACTACAGACGT
TCTCAGGCTGGCCAGAAGAGACATCTTGGGTTCTTGGCCTCACTCTCTGTAAGCATATAAACCACAGGCGAAAG
AGGATGCTGCATTGCGAGGACCCAGAAATTCATACTGGTGCCACGTTTCCCTTCCCTTATTTCTAACGTGTATGTT
TCTGGTGGAAACCAAGTTCACCCTGGCTGGGAGCATCTCTGATGAGGCATGCTGGCGACTGGATGGATAATCCTG
TGCATCACCATTGTGTCCTGTGCTCCCTCCTAGCGCAGTGGCCAAGCCGGGAAAGCCTCTAACTTGCCTTTGCTG
CTGCTGCCTTTTTTTTCTTTGTCTCTGCCTTTCCATTTGTTAGATGGGGGCCCACTCTTCTTAGCTCTGTCTC
TGAGTTACTGGGTGGAAATAAGCTTATAAATGAAATACTCTTCTTCATCTCTGTTTTGCTCTTAAAAATATAAAA
AGGCAATTCCCCGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 4785

MGVLRVGLCPGLTEEMIQLLRSHRIKTVVDLVSADLEEVAQKCGLSYKALVALRRVLLAQFSAFPVNGADLHEEL
KTSTAILSTGIGSLDKLLDAGLYTGEVTEIVGGPGSGKTQVCLCMAANVAHGLQQNVLYVDSNGGLTASRLQLL
QAKTQDEEEQAEALRRIQVVHAFDIFQMLDVLQELRGTVAAQVTGSSGTVKVVVVDSTAVVSPLLGGQQREGLA
LMMQLARELKTLDLGMVVTNHITRDRDSGRKLPALGRSWSFVPSTRILLDTIEGAGASGGRRMACLAKSSR
QPTGFQEMVDIGTWGTSEQSATLQGDQT

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FIGURE 4786

CTGGAACCCGGAAGCGGCAGCGCGGCGCGACCCGGCGGGCGGGCTCTGGGCGCGGGAATCCCGGCGGATCCCGGG
CGGGCGGATGACCCCCAGCCCTACCCCTTGGTGCCGCTCCTCCTCTCTCCTTTCTCCTCCGGCAGCCAGCGCGCC
TGTGTCTCTCTAGGAAGGGGTAGGGGAGGGGCGTCTGGAGAGGACCCCCGCGAATGCCACGTGACGTGCAGT
CCCCCTGGGGCTGTTCCGGCCTGCGGGGAACATGGGCGTGCTCAGGGTCGGACTGTGCCCTGGCCTTACCGAGGA
GATGATCCAGCTTCTCAGGAGCCACAGGATCAAGACAGTGGTGGACCTGGTTTCTGCAGACCTGGAAGAGGTAGC
TCAGAAATGTGGCTTGTCTTACAAGTCTTGATAAACTGCTTGATGCTGGTCTCTATACTGGAGAAGTGACTGAAA
TTGTAGGAGGCCCCAGGTAGCGGCAAACTCAGGTATGTCTCTGTATGGCAGCAAATGTGGCCCATGGCCTGCAGC
AAAACGTCTATATGTAGATTCCAATGGAGGGCTGACAGCTTCCCGCCTCCTCCAGCTGCTTCAGGCTAAAACCC
AGGATGAGGAGGAACAGGCAGAAGCTCTCCGGAGGATCCAGGTGGTGCATGCATTTGACATCTTCCAGATGCTGG
ATGTGCTGCAGGAGCTCCGAGGCACTGTGGCCCGAGCAGGTGACTGGTTCTTCAGGAACGTGTAAGGTGGTGGTTG
TGGACTCGGTCACTGCGGTGGTTTTCCCACTTCTGGGAGGTGAGCAGAGGGAAGGCTTGGCCTTGATGATGCAGC
TGGCCCGAGAGCTGAAGACCCCTGGCCCGGGACCTTGGCATGGCAGTGGTGGTGACCAACCACATAACTCGAGACA
GGGACAGCGGGAGGCTCAAACCTGCCCTCGGACGCTCCTGGAGCTTTGTGCCAGCACTCGGATTCTCCTGGACA
CCATCGAGGGAGCAGGAGCATCAGGCGGCCGGCGCATGGCGTGTCTGGCCAAATCTTCCCGACAGCCAACAGGTT
TCCAGGAGATGGTAGACATTGGGACCTGGGGGACCTCAGAGCAGAGTGCCACATTACAGGGTGATCAGACATGAC
CTGTGCTGTGTGTTTGGGAAACAGGGAAGCATTGGGGACCCCTCCCAACTTTTCTTCCAGTAACGCCTGCTGTTT
ACTGCCACCTGGCACTGGTGACTACAGACGTTCTCAGGCTGGCCAGAAGAGACATCTTGGGTTCTTGGCCTCAC
TCTCTGTAAGCATATAAACCACAGGCGAAAGAGGATGCTGCATTGCGAGGACCCAGAAATTCATACTGGTGCCAC
GTTTCCTTCCCTTATTTCTAACGTGTATGTTTCTGGTGGAAACCAAGTTCACCCTGGCTGGGAGCATCTCTGATG
AGGCATGCTGGCGACTGGATGGATAATCCTGTGCATCACCATTGTGTCTGTGCTCCCTCCTAGCGCAGTGGCCA
AGCCGGGAAAGCCTCTAACTTGCCCTTGTCTGCTGCTGCTTTTTTTTCTTTTGTCTCTGCCTTTCCATTTGTTAG
ATGGGGGCCCCACTCTTCCTTAGCTCTGTCTCTGAGTTACTGGGTGGAAATAAGCTTATAAATGAAATACTCTTCT
TCATCTCTGTTTTGCTCTTAAAAATATAAAAAGGCAATTCCCCG

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FIGURE 4787

MGVLRVGLCPGLTEEMIQLLRSHRIKTVVDLVSADLEEVAQKCGLSYKS

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FIGURE 4788

CTGGAACCCGGAAGCGGCAGCGCGGCGCGACCCGGCGGGCGGGCTCTGGGCGCGGGAATCCCGGCGGATCCCGGG
CGGGCGGATGACCCCCAGCCCTACCCCTTGGTGCCGCTCCTCCTCTCTCCTTTCTCCTCCGGCAGCCAGCGCGCC
TGTGTCTCTCTAGGAAGGGGTAGGGGAGGGGCGTCTGGAGAGGACCCCCGCGAATGCCACGTGACGTGCAGT
CCCCCTGGGGCTGTTCCGGCCTGCGGGGAACATGGGCGTGTCTCAGGGTCGGACTGTGCCCTGGCCTTACCGAGGA
GATGATCCAGCTTCTCAGGAGCCACAGGATCAAGACAGTGGTGGACCTGGTTTCTGCAGACCTGGAAGAGGTAGC
TCAGAAATGTGGCTTGTCTTACAAGTCTTGATAAACTGCTTGATGCTGGTCTCTATACTGGAGAAGTGACTGAAA
TTGTAGGAGGCCCCAGGTAGCGGCAAACTCAGGCAGAAGCTCTCCGGAGGATCCAGGTGGTGCATGCATTTGACA
TCTTCCAGATGCTGGATGTGCTGCAGGAGCTCCGAGGCAGTGTGGCCAGCAGGTGACTGGTTCTTCAGGAAGT
TGAAGGTGGTGGTTGTGGACTCGGTCACTGCGGTGGTTTCCCCACTTCTGGGAGGTGAGCAGAGGGAAGGCTTGG
CCTTGATGATGCAGCTGGCCCCGAGAGCTGAAGACCCCTGGCCCCGGGACCTTGGCATGGCAGTGGTGGTGACCAACC
ACATAACTCGAGACAGGGACAGCGGGAGGCTCAAACCTGCCCTCGGACGCTCCTGGAGCTTTGTGCCAGCACTC
GGATTCTCCTGGACACCATCGAGGGAGCAGGAGCATCAGGCGGCCGGCGCATGGCGTGTCTGGCCAAATCTTCCC
GACAGCCAACAGGTTTCCAGGAGATGGTAGACATTGGGACCTGGGGGACCTCAGAGCAGAGTGCCACATTACAGG
GTGATCAGACATGACCTGTGCTGTTGTTTGGGAAACAGGGAAGCATTGGGGACCCCTCCCAACTTTTCTTCCCAG
TAACGCCTGCTGTTTACTGCCACCTGGCACTGGTGACTACAGACGTTCTCAGGCTGGCCAGAAGAGACATCTTGG
GTTCTTGGCCTCACTCTCTGTAAGCATATAAACACAGGCGAAAGAGGATGCTGCATTGCGAGGACCCAGAAAT
TCATACTGGTGCCACGTTTCTTCCCTTATTTCTAACGTGTATGTTTCTGGTGGAAACCAAGTTCACCCTGGCTG
GGAGCATCTCTGATGAGGCATGCTGGCGACTGGATGGATAATCCTGTGCATCACCATTGTGTCCTGTGCTCCCTC
CTAGCGCAGTGGCCAAGCCGGGAAAGCCTCTAACTTGCTGCTGCTGCCTTTTTTTTTCTTTTGTCTCTGC
CTTTCCATTTGTTAGATGGGGGCCCCACTCTTCTTAGCTCTGTCTCTGAGTTACTGGGTGGAAATAAGCTTATAA
ATGAAATACTCTTCTTCATCTCTGTTTTGCTCTTAAAAATATAAAAAGGCAATTCCCCG

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FIGURE 4789

MGVLRVGLCPGLTEEMIQLLRSHRIKTVVDLVSADLEEVAQKCGLSYKS

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FIGURE 4790

CTGGAACCCGGAAGCGGCAGCGCGGCGCGACCCGGCGGGCGGGCTCTGGGCGCGGGAATCCCGGCGGATCCCGGG
CGGGCGGATGACCCAGCCCTACCCCTTGGTGCCGCTCCTCCTCTCTCCTTTCTCCTCCGGCAGCCAGCGCGCC
TGTGTCTCTCTAGGAAGGGGTAGGGGAGGGGCGTCTGGAGAGGACCCCCGGAATGCCCACGTGACGTGCAGT
CCCCCTGGGGCTGTTCCGGCCTGCGGGGAACATGGGCGTGCTCAGGGTCGGACTGTGCCCTGGCCTTACCGAGGA
GATGATCCAGCTTCTCAGGAGCCACAGGATCAAGACAGTGGTGGACCTGGTTTCTGCAGACCTGGAAGAGGTAGC
TCAGAAATGTGGCTTGTCTTACAAGGCAGAAGCTCTCCGGAGGATCCAGGTGGTGCATGCATTTGACATCTTCCA
GATGCTGGATGTGCTGCAGGAGCTCCGAGGCACTGTGGCCCAGCAGGTGACTGGTTCTTCAGGAAGTGTGAAGGT
GGTGGTTGTGGACTCGGTCACTGCGGTGGTTTCCCCACTTCTGGGAGGTCAGCAGAGGGAAGGCTTGGCCTTGAT
GATGCAGCTGGCCCGAGAGCTGAAGACCCCTGGCCCCGGGACCTTGGCATGGCAGTGGTGGTGACCAACCACATAAC
TCGAGACAGGGACAGCGGGAGGCTCAAACCTGCCCTCGGACGCTCCTGGAGCTTTGTGCCAGCACTCGGATTCT
CCTGGACACCATCGAGGGAGCAGGAGCATCAGGCGGCCGCGCATGGCGTGTCTGGCCAAATCTTCCCGACAGCC
AACAGGTTTCCAGGAGATGGTAGACATTGGGACCTGGGGGACCTCAGAGCAGAGTGCCACATTACAGGGTGATCA
GACATGACCTGTGCTGTTGTTTGGGAAACAGGGAAGCATTGGGGACCCCTCCCAACTTTTCTTCCCAGTAACGCC
TGCTGTTTACTGCCACCTGGCACTGGTGACTACAGACGTTTCTCAGGCTGGCCAGAAGAGACATCTTGGGTTTCCTT
GGCCTCACTCTCTGTAAGCATATAAACACAGGCGAAAGAGGATGCTGCATTGCGAGGACCCAGAAATTCATACT
GGTGCCACGTTTCCCTTCCCTTATTTCTAACGTGTATGTTTCTGGTGGAAACCAAGTTCACCCTGGCTGGGAGCAT
CTCTGATGAGGCATGCTGGCGACTGGATGGATAATCCTGTGCATCACCATTGTGTCTGTGCTCCCTCCTAGCGC
AGTGCCAAAGCCGGGAAAGCCTCTAACTTGCCCTTGGCTGCTGCTGCCTTTTTTTTCTTTTGTCTCTGCCTTTCCA
TTTGTTAGATGGGGGCCCACTCTTCCCTAGCTCTGTCTCTGAGTTACTGGGTGGAATAAGCTTATAAATGAAAT
ACTCTTCTTCATCTCTGTTTTGCTCTTAAAAATATAAAAAGGCAATTCCCCG

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FIGURE 4791

MGVLRVGLCPGLTEEMIQLLRSHRIKTVVDLVSADLEEVAQKCGLSYKAEALRRIQVVHAFDIFQMLDVLQELRG
TVAQQVTGSSGTVKVVVVDSTAVVSPLLGGQQREGLALMMQLARELKTILARDLGMAVVVTNHITRDRDSGRLKP
ALGRSWSFVPSTRILLDTIEGAGASGGRRMACLAKSSRQPTGTFQEMVDIGTWGTSEQSATLQGDQT

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FIGURE 4792

GTGGGGACGCAGGATGCGGGCAGCAGTGGCGGACGAGGCGGTGGCGCGCGATGTGCAGCGGTTGCTAGTGCAGTT
CCAGGATGAGGGCGGGCAGCTGCTGGGTTCCTCGTTCGACGTGCCCGTGGACATCACCCCGGACAGGCTGCAGCT
CGTGTGCAACGCGCTACTGGCCCAGGAGGATCCCTGCCACTGGCTTTCTTTGTCCACGATGCTGAGATCGTCTC
CTCACTGGGGAAAGACGTTGGAGTCCCAGGCAGTGGAGACAGAGAAGGTCCTAGACATCATCTACCAGCCACAGGC
TATCTTCAGAGTCCGGGCTGTGACTCGCTGCACCAGCTCCTTGGAGGGTCACAGTGAGGCAGTCATTTCTGTGGC
CTTCAGCCCTACGGGAAAGTACCTGGCCAGTGGCTCTGGAGACACCACCGTGCGCTTCTGGGATCTCAGCACAGA
GACACCACATTTACATGCAAGGGACACAGACACTGGGTCTTAGTATATCCTGGTCTCCAGATGGCAAGAAGCT
GGCCTCAGGCTGCAAGAAATGGCCAGATTCTCCTCTGGGACCCAAGCACAGGGAAGCAGGTGGGCAGGACCCCTCGC
TGGCCACAGCAAGTGGATCACAGGCCTGAGCTGGGAGCCCTCCATGCGAACCCCTGAGTGCCGCTATGTGGCCAG
CAGTCCAAGGATGGCAGTGTGCGGATCTGGGACACAACCTGCAGGCCGCTGTGAGCGCATCCTCACCGGGCACAC
CCAGTCGGTCACCTGTCTCCGGTGGGGAGGGGACGGGCTTCTCTACTCTGCCTCCAGGACCGCACCATCAAAGT
CTGGAGAGCTCATGACGGTGTGCTGTGCCGACTCTGCAAGGCCACGGCCACTGGGTGAACACCATGGCCCTCAG
CACTGACTATGCCCTGCGCACTGGGGCCTTTGAACCTGCTGAGGCCTCAGTTAATCCCAAGACCTCCAAGGATC
CTTGACAGGAGTTGAAGGAGAGGGCTCTGAGCCGATAACAACCTCGTGCGGGGCCAGGGTCCAGAGAGGCTGGTGTC
TGGCTCCGACGACTTCACCTTATTCCTGTGGTCCCCAGCAGAGGACAAAAAGCCTCTCACTCGGATGACAGGACA
CCAAGCTCTCATCAACCAGGTGCTCTTCTCTCCTGACTCCCGCATCGTGGCTAGTGCCTCCTTTGACAAGTCCAT
CAAGCTGTGGGATGGCAGGACGGGCAAGTACCTGGCTTCCCTACGCGGCCACGTGGCTGCCGTGTACCAGATTGC
GTGGTCAGCTGACAGTGGCTCCTGGTCAGCGGCAGCAGTGACAGCACACTGAAGGTGTGGGATGTGAAGGCCCA
GAAGCTGGCCATGGACCTGCCCCGCCACGCGGATGAGGTATATGCTGTTGACTGGAGTCCAGATGGCCAGAGAGT
GGCAAGTGGTGGGAAGGACAAATGCCCTCCGGATATGGAGGAGATGAGACGGCCCCGAAGTTCTCTCTGACCCCCAC
CTCGACTCGGCCTCTGCCAGCTGCCCTTCCCTGCCAGAGAACAAGGCTGAGATGGCAGTGACACACCCCTCCCCA
CCAGTGGGGACCTGAGAAATGCGTGTGGCCTGCTGTCTCGATAGACCGGAATGGGGTTTTCCACAGATCCCCGC
CTGTGGCACACCCCAGAGCCAGAAATCGAAGGTCACAGGAAGTTGTCAGTGAACCTGGCCCGTGTCTGCTACTCT
GTACCTTGCTGGTACAGACAGGGGTGGTGGGCAGCCAGGCTCTATGAGTGGGCCCTAGTGTGAGCTCTGTACAG
GGTCAGATCCCAGGTTCTATGACCAATAAGTAACTTAAGTTTTGTGTGTTGGGTTCTAATTCCTTGCTCTAGAA
TCCCCATGACTCAATCAAGGACTGTGCTAAATGAGATTGTCCAGCCCCGCCCTTGCACTGGACTACGCCAAAAC
CACACTGACCAGGCACITGCCTTCCCTCTCTTCCCCCGTGTGGTAAGAGAGAGAGGCCAGTTGTGATAGTGGCCAA
GGAGAATCTAGGGCTGTATTGTTGTCCACTGCAGTAGGCACCGGCCACATGTGACTGCTGGCATGAAATAGAAGT
GCAGTTCTCTCATCGCACTGGGTAAGGCCTCCAGTATTGGACAGCACACAGAAAGGTTTTTCATCATCAAGAGAGT
TCTGCTGGTCAGCCCTGCTCCAGGGGATGCCTCTGCCTTCGATAGCACACTGCTTGAGGCCCTGCCAGGCACCA
AGCACTGCCCTGGGCCCATGGGATAGAGCGGGGAAGGTGATGGCTCTTCCAGAGGATTCCCTCAGATGGGGAGGC
AGCAGTATGAGCTCTGAGCAGAAGTGGGTATTGTTGATACAGAGGAAGTTCTTTGCCACGAGAACTTTCAAGCAG
TGAAAGGAATTTCCATCAGGACTCAGACCCCAGGCCGAGATCTTGCCCTGAATGTACCTGCCTCTGCTTTCTCC
TGCATCCCATGCTAAGCAGGGTCATGGTCTGAACTACTCAGATTGGATTTCCAAACCATCCTGTATAAACTGCT
CAGAACTAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 4793

MAAAVADEAVARDVQRLLLVQFQDEGGQLLGSPFDVPVDITPDRLQLVCNALLAQEDPLPLAFFVHDAEIVSSLGK
TLESQAVETEKVLDIIYQPQAIFRVRAVTRCTSSLEGHSEAVISVAFSPTGKYLASGSGDITVRFWDLSTETPHF
TCKGHRHWVLSISWSPDGKKLASGCKNGQILLWDPSTGKQVGRTLGHGSKWITGLSWEPLHANPECRYVASSSKD
GSVRIWDTTAGRCERILTGHTQSVTCLRWGGDGLLYSASQDRTIKVWRAHDGVLCRTLQGHGHVNTMALSTDYA
LRTGAFEPAEASVNPQDLQGSLOELKERALSRYNLVRGQGPRLVSGSDDFTLFLWSPAEDKKPLTRMTGHQALI
NQVLFSPDSRIVASASFDKSIKLWDGRTGKYLASLRGHVAAVYQIAWSADSRLLVSGSSDSTLKVWDVKAQKLAM
DLPGHAEVYAVDWSPDGQRVASGGKDKCLRIWRR

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FIGURE 4794A

GTGCAGTGGCACGATCTTGGTTACCAACAATCTCGTCTCGAAGGCTCAGGTGATTCTCTCACCTCAGCCGCCTGA
GTAGCTGGGACCACAGTTTCAGCTGTGAGTTCAACATGGAGGCAAATCAGTGCCCCCTGGTTGTGGAACCATCTT
ACCCAGACCTGGTCAATGATAGGAGAAGTGACTCTTGGAGAAGAAAACAGAAAAAGCTGCAGAAAATTCAGA
GAGACCAAGAGAAGGAGAGAGTTATGCGGGCTGCATGTGCTTTATTAACTCAGGAGGAGGAGTGATTGCAATGG
CCAAGAAGGTTGAGCATCCCGTGGAGATGGGACTGGATTTAGAACAGTCTTTGAGAGAGCTTATTGAGTCTTCAG
ATCTGCAGGCTTTCTTTGAGACCAAGCAACAAGGAAGGTGTTTTTACATTTTTGTTAAATCTTGGAGCAGTGGCC
CTTTCCCTGAAGATCGCTCTGTCAAGCCCCGCCCTTTCAGCCTCAGTTCTTCATTATACCGTAGATCTGAGACCT
CTGTGCGTTCCATGGACTCAAGAGAGGCATTCTGTTTCTGAAGACCAAAAGGAAGCCAAAATCTTGGAAGAAG
GACCTTTTCACAAAATTCACAAGGGTGTATACCAAGAGCTCCCTAACTCGGATCCTGCTGACCCAACTCGGATC
CTGCTGACCTAATTTTCAAAAAGACTATCTTGAATATGGTGAAATCCTGCCCTTTCTGAGTCTCAGTTAGTAG
AGTTTAAACAGTTCTCTACAAAACACTTCCAAGAATATGTAAAAAGGACAATTCCAGAATACGTCCCTGCATTG
CAAACACTGGAGGAGGCTATCTTTTTATTGGAGTGGATGATAAGAGTAGGGAAGTCTGGGATGTGCAAAAGAAA
ATGTTGACCTGACTCTTTGAGAAGGAAAATAGAACAAGCCATATACAACTACCTTGTGTTCATTTTGCCAAC
CCCAACGCCCCGATAACCTTCACACTCAAAATTGTGAATGTGTTAAAAAGGGGAGAGCTCTATGGCTATGCTTGCA
TGATCAGAGTAAATCCCTTCTGCTGTGAGTGTCTCAGAAGCTCCCAATTCATGGATAGTGGAGGACAAGTACG
TCTGCAGCTGACAACCGAGAAATGGGTAGGCATGATGACAGACACAGATCCAGATCTTCTACAGTTGTCTGAAG
ATTTTGAATGTCAGCTGAGTCTATCTAGTGGGCTCCCTTAGCAGACCAAGTGTACTCCAAGAAAGGCTGGAAC
ATAAAAGGAACTCCAGCAACTTTTATTTTTCAGTCCCACCAGGATATTTGCGATATACTCCAGAGTCACTCTGGA
GGGACCTGATCTCAGAGCACAGAGGACTAGAGGAGTTAATAAATAAGCAAATGCAACCTTTCTTCGGGGAAATTT
TGATCTTCTCTAGAAGTTGGGCTGTGGACCTGAACCTTGCAAGGAGAAGCCAGGAGTCATCTGTGATGCTGTGCTGA
TAGCACAGAACAGCACCCCCATTCTCTACACCATTCTCAGGGAGCAAGATGCAGAGGGCCAGGACTACTGCCTC
GCACCGCCTTTACTTTGAAGCAGAAGCTAGTGAACATGGGGGGCTACACCGGAAGGTGTGTGTCAGGGCCAAGG
TCCTCTGCCTGAGTCTGAGAGCAGCGCAGAGGCCTTGGAGGCTGCAGTGTCTCCGATGGATTACCCTGCGTCTCT
ATAGCCTTGCAAGGCACCCAGCACATGGAAGCCCTGCTGCAGTCCCTCGTGATTGTCTTACTCGGCTTCAGGTCTC
TCTTGAGTGACCAGCTCGGCTGTGAGGTTTTAAATCTGCTCACAGCCCAGCAGTATGAGATATTCTCCAGAAGCC
TCCGCAAGAACAGAGAGTTGTTTGTCCACGGCTTACCTGGCTCAGGGAAGACCATCATGGCCATGAAGATCATGG
AGAAGATCAGGAATGTGTTTCACTGTGAGGCACACAGAATTCTCTACGTTTGTGAAAACCAGCCTCTGAGGAACT
TTATCAGTGATAGAAATATCTGCCGAGCAGAGACCCGAAAACCTTTCTAAGAGAAAACCTTTGAACACATTCAAC
ACATCGTCATTGACGAAGCTCAGAATTTCCGTACTGAAGATGGGGACTGGTATGGGAAGGCAAAAAGCATCACTC
GGAGAGCAAAGGGTGGCCCAGGAATCTCTGGATCTTTCTGGATTACTTTAGACCAGCCACTTGGATTGCAGTG
GCCTCCCTCCTCTCTCAGACCAATATCCAAGAGAAGAGCTCACCAGAATAGTTCGCAATGCAGATCCAATAGCCA
AGTACTTACAAAAGAAATGCAAGTAATTAGAAGTAATCCTTCAATTAACATCCCCACTGGGTGCCCTCGAGGTAT
TTCTTGAAGCCGAATGGTCCCAGGGTGTTCAGGGAACCTTACGAATTAAGAAATACTTGACTGTGGAGCAATAA
TGACCTGTGTGGCAGACACGTGCAGGCGCTTTTGTATAGGGGCTATTCTCCAAGGATGTTGCTGTGCTTGTCA
GCACCGCAAAAAGAGTGGAGCACTATAAGTATGAGCTCTTGAAAGCAATGAGGAAGAAAAGGGTGGTGCAGCTCA
GTGATGCATGTGATATGTTGGGTGATCACATTGTGTTGGACAGTGTTCCGGCGATTCTCAGGCCCTGGAAAGGAGCA
TAGTGTTTGGGATCCATCCAAGGACAGCTGACCCAGCTATCTTACCCAATGTTCTGATCTGTCTGGCTTCCAGGG
CAAAACAACACCTGTATATTTTTCCGTGGGGTGGCCATTAGGAAGAATCCAAATCAAAATGCTATGTAAATGTC
TATGGGTGACAGTCTGCTGATGGTAGAAACCTTTCTTTTTAGTTTACAAGTCAGAGATTGGACGGAGCTGACAC
AAAGAGTTTGGAGCTCCCCCATTTCTGGCTCTCCTTTTCAGGGGTTCCCTCCCAACCTTTTCAGCAGCGGTGGCT
GCCCCCATTTCTGACCCCTGACTCTTCCAGCCAGAAAGATGGTGGTTTTCTAAAGGAACCTTTAGCTGTCTGCAC
AATGCCGATCTGTGCTTGCATTTTGGGTAAAAGCCATAAAAATAAGAACTCAGCCTGTGGCCTTTCTTTCTTC
CAAGGCTGGGCTTCTTTTTTAAGTGACTTCATGCAGTTTGTGCTTTTAAAAATTTGTCCAGAATCGTTTTCTG
CAGAAGCATGGTCTGTTAGGAGCTTACTGGCCGTAGCAGAAGCAATTGTTTCTGAATCTTGACATTTATCTTT
GCTGTATTCAATTTAGGGCTTGGGAGAGTCCGAAGATAATTCAGTCACTGTGAGATTAAATAATTTGTGAGGACAA
AGAATACCGTTATGATTATTTAATCCTTTAAATTTGGTCTCCAGAGCTTGTCTCAGAATGGCCAGACCAAG
CCTTAATTTGTGATAGTGAATATTAATGGTCACTTTAAGGAGAAATTATAGGCCAAGATGAAATGAACATAAACCT
GTTTGGCCTGGCTTTTCAGTGGAAAGATGATATTAGAGACCAAAATCTGGTTCTGAAGGTGTGTATCAGCCCTAAGG

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FIGURE 4794B

TGAACCAGACTTGGGAAAGATTGTCCTTTAAAAATCAATGAGTTTATGTTTTAACTTCTCAGCTTAGTTCTATGCA
TTGCTCTATAACACACCTAGTTAAGTTTTATGTTATTCTTGAAGTGTGATTTTTTTTTCTATTTACTTTTCATGGTT
TGGTGGGCCATTGTTATGGACTGAATGTTTGTGTCCACCCCTTCACCCCCAAATTCCCGTGTTGAAGCCCCAACC
TGCACTGTGGAGCTGGGGCTGCTAAGGAAGTAATTAAGGTTACATGAAGTCATGGTGGGGCTCTGATCTGCTAAG
GTTGGTGTCTTATAGGGAGAGACCCCAGAGAGCTTGTTCCCTCCCTCCCTGTGCATGCAAACAAGAGGGCATGG
GAGCACACAGAGAGATGGCAGCCACCTACAAGCCAAGAGGAGAAGCCTCACAATCAAACCTCTCGCTGCTGGCGAG
AGTCTTGGACTCTGTCTTGGACTTCCAGCCTCCAGACTGTGAGAAACAAATTTCTGTTGTTTCAGCTTCTCAGTC
TCTGGTGTTTTGTTATTGCAGCCTGAGAACACAGCTGTACGATTATTTGTCAAACAGAAAACACTGATACTTAAC
AATGCTAATGCAATTATTTATTTGCTTTTTCAGTCTCTACAAAACGTTCTAAAACACTAATCTAAATATTAACAGT
AAAAATATTTGCATAACTAATGGAAACTAAGAAATCATATGACCAATATTTCACTTATTGGTAATCTTACTCTACT
GATTTCCCCCAGACTGTGATTTTTGAACTTCCTTGCCTTTCTCCTGTCTTTCTGTGTTTATTCATGGAATTCCA
GTTATCTGGGCTTGAAATTGCAGGCTCTCCTAACTTAAGCAAAATCTGACAGATCAGCAAAATGAGATAAATGTT
TCTTTTTTCTTTCTGACTGCATTAAATCAGATACAACTCAGCATTAAAAAGCTATCTTTGTAAATGTTGTTACTA
ATAAATTAGTCTTATAAGATCCCTGGACTTTGGAGTTGTTGCAATGTCTTTGAGAGTAATTTCTTTAAAGTCTAA
TTTCGACTGGTTGTATCTCTTTATGATTTATTGCCCCACTAACAATATTTGAAACAATATAATATTTTAAATGT
ATAAATAATTATGAATTTTTGTTTAGAACAAAGAGGATTACTGATATTTGTTTCCCTATGAATGGCAAAGGTTT
AGCTTACTACTGCATTTCTGTTTTAAATAAAAAGTTGAGAGTTTGTGTCTCATTAACTG

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FIGURE 4795

MEANQCPLVVEPSYPDLVINVGCVTLGGEENRKKLQKIQRDQEKERVMAACALLNSGGGVIRMAKKVEHPVEMGL
DLEQSLRELIQSSDLQAFFETKQQGRCFYIFVKSWSSGPFPEDRSVKPRLCSSLSSLYRRSETSVRSMDSREAF
FLKTKRKP KILEEGPFHKIHKGVYQELPNSDPADPNSDPADLIFQKDYLEYGEILPFPESQLVEFKQFSTKHQ
YVKRTIPEYVPAFANTGGGYLFIGVDDKSREVLGCAKENVDPDSLRRKIEQAIYKLPVHFCQPQRPITFTLKIV
NVLKRGELYGYACMIRVNPFCFAVSEAPNSWIVEDKYVCSLTTEKWVGMMTDTPDLLQLSEDFECQLSLSSGP
PLSRPVYSKKGLEHKKELQQLFSVPPGYLRYTPESLWRDLISEHRGLEELINKQMPPFFRGILIFSRSWAVDLN
LQEKPGVICDALLIAQNSTPILYTLREQDAEGQDYCTRATFTLKQKLVNMGGYTGKVCVRKVLCLSPSSAEA
LEAAVSPMDYPASYSLAGTQHMEALLQSLVIVLLGFRSLSDQLGCEVLNLLTAQQYEIFSRSLRKNRELFVHGL
PGSGKTIMAMKIMEKIRNVFHCEAHRILYVCENQPLRNFI SDRNICRAETRKTFLRENFEHIQHIVIDEAQNFRT
EDGDWYGKAKSITRRAKGGPGILWIFLDYFQTSHLDCSGLPPLSDQYPREELTRIVRNADPIAKYLQKEMQVIRS
NPSFNIPITGCLEVFPEAEWSQGVQGTLRICKYLTVEQIMTCVADTCRRFFDRGYSPKDVAVLVSTAKEVEHYKYE
LLKAMRKKRVVQLSDACDMLGDHIVLDSVRRFSGLERSIVFGIHPRTADPAILPNVLICLASRAKQHLYIFPWGG
H

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FIGURE 4796A

AATTCTCGAGCTCGTTCGACCGGTCGACGAGCTCGAGGGTCGACGAGCTCGAGGGCGCGCGCCCCGGCCCCACCCC
TCGCAGCACCCCCGCGCCCCGCGCCCTCCAGCCGGGTCCAGCCGGAGCCATGGGGCCGGAGCCGAGTGAAGCACC
ATGGGAGCTGGCGGCCCTTGTGCCGCTGGGGGCTCCTCCTCGCCCTCTTGCCCCCGGAGCCGCGAGCACCCAAGTG
TGCACCGGCACAGACATGAAGCTGCGGCTCCCTGCCAGTCCCGAGACCCACCTGGACATGCTCCGCCACCTCTAC
CAGGGCTGCCAGGTGGTGCAGGGAAACCTGGAACCTACCTACCTGCCCACCAATGCCAGCCTGTCTTCTCCTGCAG
GATATCCAGGAGGTGCAGGGCTACGTGCTCATCGCTCACAACCAAGTGAGGCAGGTCCCAGTGCAGAGGGCTGCGG
ATTGTGCGAGGCGACCCAGCTCTTTGAGGACAACCTATGCCCTGGCCGTGCTAGACAATGGAGACCCGCTGAACAAT
ACCACCCCTGTTCACAGGGGGCTCCCCAGGAGGCTGCGGGAGCTGCAGCTTCGAAGCCTCACAGAGATCTTGAAA
GGAGGGGTCTTGATCCAGCGGAACCCCCAGCTCTGCTACCAGGACACGATTTTGTGGAAGGACATCTTCCACAAG
AACAAACAGCTGGCTCTCACACTGATAGACACCAACCGCTCTCGGGCCTGCCACCCCTGTTCTCCGATGTGTAAG
GGCTCCCGCTGCTGGGGAGAGAGTTCTGAGGATTGTGAGAGCCTGACGCGCACTGTCTGTGCCGGTGGCTGTGCC
CGCTGCAAGGGGCCACTGCCCACTGACTGCTGCCATGAGCAGTGTGCTGCCGGCTGCACGGGCCCAAGCACTCT
GACTGCCTGGCCTGCCTCCACTTCAACCACAGTGGCATCTGTGAGCTGCACTGCCAGCCCTGGTCACCTACAAC
ACAGACACGTTTGAGTCCATGCCCAATCCCGAGGGCCGGTATACATTCGGCGCCAGCTGTGTGACTGCCTGTCCC
TACAACTACCTTTCTACGGACGTGGGATCCTGCACCCCTCGTCTGCCCCCTGCACAACCAAGAGGTGACAGCAGAG
GATGGAACACAGCGGTGTGAGAAGTGACAGCAAGCCCTGTGCCCGAGTGTGCTATGGTCTGGGCATGGAGCACTTG
CGAGAGGTGAGGGCAGTTACCAAGTGCCAATATCCAGGAGTTTGTGCTGGCTGCAAGAAGATCTTTGGGAGCCTGGCA
TTTCTGCCGGAGAGCTTTGATGGGGACCCAGCCTCCAACACTGCCCCGCTCCAGCCAGAGCAGCTCCAAGTGTTT
GAGACTCTGGAAGAGATCACAGGTTACCTATACATCTCAGCATGGCCGGACAGCCTGCCTGACCTCAGCGTCTTC
CAGAACCTGCAAGTAATCCGGGGACGAATTCTGCACAATGGCGCCTACTCGCTGACCTGCAAGGGCTGGGCATC
AGCTGGCTGGGGCTGCGCTCACTGAGGGAACTGGGCAGTGGACTGGCCCTCATCCACCATAACACCCACCTCTGC
TTCGTGCACACGGTGCCCTGGGACCACTCTTTCGGAACCCGCACCAAGCTCTGCTCCACACTGCCAACCGGCCA
GAGGACGAGTGTGTGGGCGAGGGCCTGGCCTGCCACCACTGTGCGCCCCGAGGGCACTGCTGGGGTCCAGGGCCC
ACCCAGTGTGTCAACTGCAGCCAGTTCTTTCGGGGCCAGGAGTGCCTGGAGGAATGCCGAGTACTGCAGGGCTC
CCCAGGGAGTATGTGAATGCCAGGCACTGTTTGCCGTGCCACCCCTGAGTGTGAGCCCGAGAATGGCTCAGTGACC
TGTTTTGGACCGGAGGCTGACCAGTGTGTGGCCTGTGCCCACTATAAGGACCCCTCCCTTCTGCGTGGCCCGCTGC
CCCAGCGGTGTGAAACCTGACCTCTCTACATGCCCATCTGGAAGTTTCCAGATGAGGAGGGCGCATGCCAGCCT
TGCCCCATCAACTGCACCCACTCCTGTGTGGACCTGGATGACAAGGGCTGCCCCGCCGAGCAGAGAGCCAGCCCT
CTGACGTCCATCGTCTCTGCGGTGGTTGGCAATCTGCTGGTCTTGGGGTGGTCTTTGGGATCCTCATC
AAGCGCAGGCGAGCAGAAGATCCGGAAGTACACGATGCGGAGACTGCTGCAGGAAACGGAGCTGGTGGAGCCGCTG
ACACCTAGCGGAGCGATGCCCAACCAAGGCGCAGATGCGGATCCTGAAAGAGACGGAGCTGAGGAAGGTGAAGGTG
CTTGGATCTGGCGCTTTTGGCACAGTCTACAAGGGCATCTGGATCCCTGATGGGGAGAATGTGAAAATTCCAGTG
GCCATCAAAGTGTGTGAGGAAAACACATCCCCCAAAGCCAAAGAAATCTTAGACGAAGCATACGTGATGGCT
GGTGTGGGCTCCCCATATGTCTCCCGCCTTCTGGGCATCTGCCTGACATCCACGGTGCAGCTGGTGCACAGCTT
ATGCCCTATGGCTGCCTCTTAGACCATGTCCGGGAAAACCGCGGACGCTGGGCTCCCAGGACCTGCTGAACCTGG
TGTATGCAGATTGCCAAGGGGATGAGCTACCTGGAGGATGTGCGGCTCGTACACAGGGACTTGGCCGCTCGGAAC
GTGCTGGTCAAGAGTCCCAACCATGTCAAAATTACAGACTTCGGGCTGGCTCGGCTGCTGGACATTGACGAGACA
GAGTACCATGCAGATGGGGGCAAGGTGCCCAACAAGTGGATGGCGCTGGAGTCCATTCTCCGCCGGCGGTTACC
CACCAGAGTGTGTGTGGAGTTATGGTGTGACTGTGTGGGAGCTGATGACTTTTGGGGCCAAACCTTACGATGGG
ATCCCAGCCCCGGGAGATCCCTGACCTGCTGGAAAAGGGGGAGCGGCTGCCCCAGCCCCCATCTGCACCATTGAT
GTCTACATGATCATGGTCAAATGTTGGATGATTGACTCTGAATGTGCGCCAAGATTCCGGGAGTTGGTGTCTGAA
TTCTCCCGCATGGCCAGGGACCCCCAGCGCTTTGTGGTCATCCAGAATGAGGACTTGGGGCCAGCCAGTCCCTTG
GACAGCACCTTCTACCGCTCACTGCTGGAGGACGATGACATGGGGGACCTGGTGGATGCTGAGGAGTATCTGGTA
CCCCAGCAGGGCTTCTTCTGTCCAGACCCTGCCCCGGGCGCTGGGGGCAATGGTCCACCACAGGCACCGCAGCTCA
TCTACCAGGAGTGGCGGTGGGGACCTGACACTAGGGCTGGAGCCCTCTGAAGAGGAGGGCCCCAGGTCTCCACTG
GCACCTCCGAAGGGGCTGGCTCCGATGTATTTGATGGTGAACCTGGGAATGGGGGCGAGCCAAGGGGCTGCAAGC
CTCCCCACACATGACCCAGCCCTCTACAGCGGTACAGTGAGGACCCACAGTACCCCTGCCCTCTGAGACTGAT
GGCTACGTTGCCCCCTGACCTGCAGCCCCAGCCTGAATATGTGAACAGCCAGATGTTTCGGCCCCAGCCCCCT

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FIGURE 4796B

TCGCCCCGAGAGGGCCCTCTGCCTGCTGCCCCGACCTGCTGGTGCCACTCTGGAAAGGGCCAAGACTCTCTCCCCA
GGGAAGAATGGGGTCGTCAAAGACGTTTTTGCCTTTGGGGGTGCCGTGGAGAACCCCGAGTACTTGACACCCAG
GGAGGAGCTGCCCCCTCAGCCCCACCCCTCCTCCTGCCTTCAGCCCAGCCTTCGACAACCTCTATTACTGGGACCAG
GACCCACCAGAGCGGGGGGCTCCACCCAGCACCTTCAAAGGGACACCTACGGCAGAGAACCCAGAGTACCTGGGT
CTGGACGTGCCAGTGTGAACCAGAAGGCCAAGTCCGCAGAAGCCCTGATGTGTCCTCAGGGAGCAGGGAAGGCCT
GACTTCTGCTGGCATCAAGAGGTGGGAGGGCCCTCCGACCACCTTCAGGGGAACCTGCCATGCCAGGAACCTGTC
CTAAGGAACCTTCCTTCCTGCTTGAGTTCCCAGATGGCTGGAAGGGGTCCAGCCTCGTTGGAAGAGGAACAGCAC
TGGGGAGTCTTTGTGGATTCTGAGGCCCTGCCCAATGAGACTCTAGGGTCCAGTGGATGCCACAGCCCAGCTTGG
CCCTTTCCTTCCAGATCCTGGGTACTGAAAGCCTTAGGGAAGCTGGCCTGAGAGGGGAAGCGGCCCTAAGGGAGT
GTCTAAGAACAAAAGCGACCCATTGAGAGACTGTCCCTGAAACCTAGTACTGCCCCCATGAGGAAGGAACAGCA
ATGGTGTCAGTATCCAGGCTTTGTACAGAGTGCTTTTCTGTTTAGTTTTTACTTTTTTTGTTTTGTTTTTTAAA
GACGAAATAAAGACCCAGGGGAGAATGGGTGTTGTATGGGGAGGCAAGTGTGGGGGTCCTTCTCCACACCCACT
TTGTCCATTTGCAAAATATATTTTGGAAAAC

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FIGURE 4797

MELAAALCRWGLLLALLPPGAASTQVCTGTDMKLRLPASPETHLDMLRHLYQGCQVVQGNLELYLPTNASLSFLQ
DIQEVQGYVLIAHNQVRQVPLQRLRIVRGTLFEDNYALAVLDNGDPLNNTTPVTGASPGGLRELQRLSLTEILK
GGVLIQRNPQLCYQDTILWKDIFHKNNQLALTIDTNRSRACHPCSPMCKGSRGWGESSEDCQSLTRTVCAAGCA
RCKGPLPTDCCHEQCAAGCTGPKHSDCLACLHFNHSGICELHCPALVTYNTDTFESMPNPEGRTYFGASCVTACP
YNYLSTDVGSCTLVCPHNLQEVTAEDGTQRCEKCSKPCARVCYGLGMEHLREVRVAVTSANIQEFAGCKKIFGSLA
FLPESFDGDPASNTAPLQPEQLQVFETLEEITGYLYISAWPDSLPLSVFQNLQVIRGRILHNGAYSLTLQGLGI
SWLGLRSLRELGSGLALIHNNTHLCFVHTVPWDQLFRNPHQALLHTANRPEDECVGEGLACHQLCARGHCWGPGP
TQCVNCSQFLRGQECVEECRVLQGLPREYVNARHCLPCHPECQPQNGSVTCFGPEADQCVACAHYKDPFFCVCAR
PSGVKPDLSYMPIWKFPDEEGACQPCPINCTHSCVDLDDKGCPAEQRASPLTSIVSAVVGILLVVVLGVVFGILI
KRRQQKIRKYTMRRLLQETELVEPLTPSGAMPNQAQMRILKETELRKVKVLGSGAFGTVYKGIWIPDGENVKIPV
AIKVLRENTSPKANKEILDEAYVMAGVGSPIVSRLLGICLTSTVQLVTQLMPYGCLLDHVRENRRGLGSQDLLNW
CMQIAKGMSYLEDVRLVHRDLAARNVLVKSPNHVKITDFGLARLLDIDETEHADGGKVPKWMMALESILRRRFT
HQSDVWSYGVTVWELMTFGAKPYDGIPAREIPDLLEKGERLPQPPICTIDVYMIMVKCWMIDSECRPRFRELVE
FSRMARDPQRFVVIQNEDLGPASPLDSTFYRSLLEDDDMGDLVDAEYLVPPQGGFFCPDPAPGAGGMVHHRHRS
STRSGGDLTLGLEPSEEEAPRSPLAPSEGAGSDVFDGDLGMGAAGLQSLPTHDPSPQLQRYSEDPTVPLPSETD
GYVAPLTCSPQPEYVNQPDVRPQPPSPREGPLPAARPAGATLERAKTLPKGKNGVVDVFAFGGAVENPEYLTPQ
GGAAPQPHPPPAFSPAFDNLYYWDQDPPERGAPPSTFKGTPTAENPEYLGLDVPV

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FIGURE 4798

CTTTCCTTTGCTGCTGCGGCCGAGCCATGAGTATGCTCAGGCTTCAGAAGAGGCTCGCCTCTAGTGTCTCCG
CTGTGGCAAGAAGAAGGTCTGGTTAGACCCCAATGAGACCAATGAAATCGCCAATGCCAACTCCCGTCAGCAGAT
CCGGAAGCTCATCAAAGATGGGCTGATCATCCGCAAGCCTGTGACGGTCCATTCCCGGGCTCGATGCCGGAAAAA
CACCTTGGCCCGCCGGAAGGGCAGGCACATGGGCATAGGTAAGCGGAAGGGTACAGCCAATGCCCGAATGCCAGA
GAAGGTCACATGGATGAGGAGAATGAGGATTTTTCGCGCCGGCTGCTCAGAAGATACCGTGAATCTAAGAAGATCGA
TCGCCACATGTATCACAGCCTGTACCTGAAGGTGAAGGGGAATGTGTTCAAAAACAAGCGGATTCTCATGGAACA
CATCCACAAGCTGAAGGCAGACAAGGCCCGCAAGAAGCTCCTGGCTGACCAGGCTGAGGCCCGCAGGTCTAAGAC
CAAGGAAGCACGCAAGCGCCGTGAAGAGCGCCTCCAGGCCAAGAAGGAGGAGATCATCAAGACTTTATCCAAGGA
GGAAGAGACCAAGAAATTAAAACCTCCCACTTTGTCTGTACATACTGGCCTCTGTGATTACATAGATCAGCCATTA
AAATAAAACAAGCCTTAATCTGC

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FIGURE 4799

MSMLRLQKRLASSVLRGKKKVWLDPNETNEIANANSRQQIRKLIKDGLIIRKPVTVHSRARCRCNTLARRKGRH
MGIGKRKGTANARMPEKVTWMRRMRILRRLRLRYRESKKIDRHMYHSLYLKVKGNVFKNKRILMEHIIHKLKADKA
RKKLLADQAEARRSKTKEARKRREERLQAKKEEIIKTLSKEEETKK

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AGCTCCAGACGCCGCTGCTGCTGCTGTGTAGTTGACAGCCGCGGCGCCTCCCGCCAGCTCGCCTCGGGGAACAG
GACGCGCGTGAGCTCCAGGGCXTCCCCGCCCCAGCTTTTCTCGGAACCATGAACCCCAACTGCGCCCCGGTGC
AAGATCGTGATCCCACGGAGAAGGTGAACCTGTCTGGATAAGTTCTGGCATAAAGCATGCTTCCATTGCGAGACC
TGCAAGATGACACTGAACATGAAGAACTACAAGGGCTACGAGAAGAAGCCCTACTGCAACGCACACTACCCCAAG
CAGTCCTTACCATGGTGGCGGACACCCCGGAAAACCTTCGCCTCAAGCAACAGAGTGAGCTCCAGAGTCAGGTG
CGCTACAAGGAGGAGTTTGAGAAGAACAAGGGCAAAGGTTTCAGCGTAGTGGCAGACACGCCCGAGCTCCAGAGA
ATCAAGAAGACCCAGGACCAGATCAGTAACATAAAATACCATGAGGAGTTTGAGAAGAGCCGCATGGGCCCTAGC
GGGGGCGAGGGCATGGAGCCAGAGCGTCGGGATTACAGGACGGCAGCAGCTACCGGCGGGCCCCCTGGAGCAGCAG
CAGCCTCACCACATCCCAGCAGTGCCCCGGTTTACCAGCAGCCCCAGCAGCAGCCGGTGGCCAGTCCCTATGGT
GGCTACAAGGAGCCTGCAGCCCCAGTCTCCATACAGCGCAGCGCCCCCATCTGTCTTCAGCACATTCCACGGCAT
CGCATCCGTCCTGGGCGTGACCCGTCCATTCTTCAGTGTCTCTGTTTTTTAAACCTGCGACAGCTTGTGATTCC
TACCCCTCTTCCAGCTTCTTTTGCCAACTGAAGCCTTCTTCTGCCACTTCTGCGGGCTCCCTCCTCTGGCAGGCT
TCCCCCTTGATCGACTTCTTGTTTTCTCTCTGGATGGAACGGGCATGGGCCTCTCTGGGGGAGGCAGGGCTGGA
ATGGGAGACCTGTTGGCCGTGTTGGCCCTCAGCTGCCCCCTCTGTTCTCTCCCCCTCACATCTCTGCCCAGCTCCTC
ACATACCCACACATTCCAGGGCTGGGGTGAGCCTGACTGCCAGGACCCCAAGGTCAGGGGCTCCCTACATTCCCCA
GAGTGGGATCCACTTCTTGTTCTCTGGGATGGCGATGGGGACTCTGCCGCTGTGTAGGGACAGTGGGATGGGCT
CTACCTCTCTTTCTCAAAGAGGGGGCTCTGCCACCTGGGGTCTCTCTCCCTACCTCCCTCCTCAGGGGCAACAA
CAGGAGAATGGGGTTCCTGCTGTGGGGCGAATTCATCCCCTCCCCGCGCGTTCCCTTCGCACACTGTGATTTTGCC
CTCCTGCCACGCAGACCTGCAGCGGGCAAAGAGCTCCCAGGAAGCACAGCTTGGGTCAGGTTCTTGCCTTTCT
TAATTTTAGGGACAGCTACCGGAAGGAGGGGAACAAGGAGTTCTCTTCCGCAGCCCCCTTCCCCACGCCACCCCC
CAGTCTCCAGGGACCCCTTGCTGCTCCTAGGCTGGAAGCCATGGTCCCAGAGTGTAGGGCAAGGGTGCCCTCAGG
ACCTTTTGGTCTTCAGCCTCCCTCAGCCCCCAGGATCTGGGTAGGTGGCCGCTCCTCCCTGCTCCTCATGGGAA
GATGTCTCAGAGCCTTCCATGACCTCCCCCTCCCCAGCCCAATGCCAAGTGGACTTGGAGCTGCACAAAGTCAGCA
GGGACCACTAAATCTCCAAGACCTGGTGTGCGGAGGCAGGAGCATGTATGTCTGCAGGTGTCTGACACGCAAGTG
TGTGAGTGTGAGTGTGAGAGATGGGGCGGGGGTGTGTCTGTAGGTGTCTCTGGGCCGTGTGTGTGGGTGGGGTTAT
GTGAGGGTATGAAGAGCTGTCTTCCCCTGAGAGTTTCCCTCAGAACCCACAGTGAGAGGGGAGGGCTCCTGGGGCA
GAGAAGTTCCCTTAGGTTTTCTTTGGAATGAAATTCCCTCCTTCCCCCATCTCTGAGTGGAGGAAGCCACCAATC
TGCCCTTTGCAGTGTGCAGGGTGGAAGGTAAGAGGTTGGTGTGGAGTTGGGGCTGCCATAGGGTCTGCAGCCTGC
TGGGGCTAAGCGGTGGAGGAAGGCTCTGTCACTCCAGGCATATGTTTCCCCATCTCTGTCTGGGGCTACAGAATA
GGGTGGCAGAAGTGTACCCCTGTGGGTGTCTCCCTCGGGGGCTCTTCCCCTAGACCTCCCCCTCACTTACATAAA
GCTCCCTTGAAGCAAGAAAGCTCTCTGCTCATGGGTGGCTGTGACAACCCCTGGCCTCACTTGATTCACTCTGCT
TTTCTTGCCACCCCTCTGGGAGTCCCCATCCCATTTTCATCCTGAGCCCAACCAGGCCCCGCCATTGGCCTCTTGT
CCCTTGGCACAATTGTACCCACAGGTGAGGGGCAGGACCTGAAGGTATTGGCCTGTTCAACAATCAGTCATCATG
GGTGTTTTTGTCAACTGCTTGTTAATTGATTTGGGGATGTTTGCCCCGAATGAGAGGTTGAGGAAAAGACTGTGG
GTGGGGAGGCCCTGCCAGCCCATCCCTTTTCTTTCTGGCCCCAGCCTAGGTGGAGGCAAGTGGAATATCTTAT
ATTGGGCGATTTGGGGGCTCGGGGAGGCAGAGAATCTTGGGAGTCTTGGGTGGCGCTGGTGCAATTCTGTTTCC
TCTTGATCTCAAAGCACAAATGTGGATTTGGGGACCAAAGGTCAGGGACACATCCCCCTAGAGGACCTGAGTTTGG
GAGAGTGGTGAGTGGAAGGGAGGAGCAGCAAGAAGCAGCCTGTTTTCACTCAGCTTAATTCTCCTTCCCAGATAA
GGCAAGCCAGTCATGGAATCTTGCTGCAGGCCCTCCCTCTACTCTTCTCTGCTTAAAAATAGGGGCGGTTTTCTT
ACACACCCCCAGAGAGAGGAGGGACTGTCACTGGTGCTGAGTGACCGGGGGCTGCTGGGCGTCTGTTCTTTAC
CAAAACCATCCATCCCTAGAAAGCACAGAGCCCTGAGGGGCTGGGCTGGGCTGGGCTGAGCCCCCTGGTCTTCTC
TACAGTTACAGAGGCTTTTACGTCAATTAATCCCAAGGAAAGAGGCATCAAAGCTAGAATGTGAATATAACTTT
TGTGGACCAATACTAAGAATAACAAGAAGCCAGTGGTGAGGAAGTGCGTTCTCCAGCACTGCCTCCTGTTTT
CTCCCTCTCATGTCCCCTCAGGGGAAAATGACITTAATGCTTAATTTCTGCTTATTTCCCCCTCACACAGCACTTT
TGGGCCTTTTTTTTATAGCTGGAAGAAAACAAAATACCACCTACAAACCTGTAATTTAAAAAGAAACAGAAATGACC
ACGTGAAATTTGCCCTCTGTCCAAACATTTATCCGTGTGTATGTGTATGTGTGTGAGTGTGTGAAGCCGCCAGTT
CATCTTTTTATATAGGGGTTGTTGTCTCATTTTGGTCTGTTTTGGTCCCCCTCCCTCGTGGGCTGTGCTCGGGATC
AAACCTTTCTGGCCTGTTATGATTCTGAACATTTGACTTGAACCACAAGTGAAATCTTTCTCCTGGTGACTCAAAT

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FIGURE 4800B

AAAAGTATAATTTTTACCTGC

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FIGURE 4801

CTTTTTTCTTTTTTCCGGCGTTCAAGATGTCGAAGCGAGGACGTGGTGGGTCCTCTGGTGCGAAATTCGGGATTT
CCTTGGGTCTTCCGGTAGGAGCTGTAATCAATTGTGCTGACAACACAGGAGCCAAAAACCTGTATATCATCTCCG
TGAAGGGGATCAAGGGACGGCTGAACAGACTTCCCGCTGCTGGTGTGGGTGACATGGTGATGGCCACAGTCAAGA
AAGGCAAACCAGAGCTCAGAAAAAAGGTACATCCAGCAGTGGTCATTGACAACGAAAGTCATACCGTAGAAAAG
ATGGCGTGTTTCTTTATTTTGAAGATAATGCAGGAGTCATAGTGAACAATAAAGGCCGAGATGAAAGGTTCTGCCA
TTACAGGACCAAGTAGCAAAGGAGTGTGCAGACTTGTGGCCCCGGATTGCATCCAATGCTGGCAGCATTGCATGAT
TCTCCAGTATATTTGTAAAAAATAAAAAAAACTAAACCCATT

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FIGURE 4802

MSKRGRGGSSGAKFRISLGLPVGAVINCADNTGAKNLYIISVKGIGRLNRLPAAGVGDMVMATVKKGKPELRKK
VHPAVVIRQRKSYRRKDGVFYFEDNAGVIVNNKGEMKGSAITGPVAKECADLWPRIASNAGSIA

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FIGURE 4803

TGCCAGCGGGGAGGCTGCAGCCGCGGGTTGTTACAGCTGCTGGAGCAGCAGCGGCCCCCGCTCCCGGGAACCGTT
CCCGGGCCGTTGATCTTCGGCCCCACACGAACAGCAGAGAGGGGCAGCAGGATGAATGTGGGCACAGCGCACAGC
GAGGTGAACCCCAACACGCGGGTGATGAACAGCCGTGGCATCTGGCTCTCCTACGTGCTGGCCATCGGTCTCCTC
CACATCGTGCTGCTGAGCATCCCGTTTGTGAGTGTCCCTGTCGTCTGGACCCTCACCAACCTCATTACAAACATG
GGCATGTATATCTTCCTGCACACGGTGAAGGGGACACCCTTTGAGACCCCGGACCAGGGCAAGGCGAGGCTGCTA
ACCCACTGGGAGCAGATGGATTATGGGGTCCAGTTCACGGCCTCTCGGAAGTTCTTGACCATCACACCCATCGTG
CTGTACTTCCTCACCAGCTTCTACACTAAGTACGACCAGATCCATTTTGTGCTCAACACCGTGTCCCTGATGAGC
GTGCTTATCCCAAGCTGCCCCAGCTCCACGGAGTCCGGATTTTTTGGGAATCAATAAGTACTGAGAGTGCAGCCCC
TTCCCTGCCCAGGGTGGCAGGGGAGGGGTAGGGTAAAAGGCATGTGCTGCAACACTGAAGACAGAAAGAAGAAG
CCTCTGGACACTGCCAGAGATGGGGGTTGAGCCTCTGGCCTAATTTCCCCCTCGCTTCCCCCAGTAGCCAACTT
GGAGTAGCTTGTAGTGGGGTTGGGGTAGGCCCCCTGGGCTCTGACCTTTTCTGAATTTTTTGATCTTTTCCTTTT
GCTTTTTGAATAGAGACTCCATGGAGTTGGTCATGGAATGGGCTGGGCTCCTGGGCTGAACATGGACCACGCAGT
TGCGACAGGAGGCCAGGGGAAAAACCCCTGCTCACTTGTTTGCCCTCAGGCAGCCAAAGCACTTTAACCCTTGCA
TAGGGAGCAGAGGGCGGTACGGCTTCTGGATTGTTTCACTGTGATTCTAGGTTTTTTCGATGCCACGCAGTGTG
TGCTTTTGTGTATGGAAGCAAGTGTGGGATGGGTCTTTGCCTTTCTGGGTAGGGAGCTGTCTAATCCAAGTCCCA
GGCTTTTGGCAGCTTCTCTGCAACCCACCGTGGGTCTGGTTGGGAGTGGGGAGGGTCAGGTTGGGGAAAGATGG
GGTAGAGTGTAGATGGCTTGGTTTCXAGAGGTGAGGGGGCCAGGGCTGCTGCCATCCTGGCCTGGTGGAGGTTGG
GGAGCTGTAGGAGAGCTAGTGAGTCGAGACTTAGAAGAATGGGGCCACATAGCAGCAGAGGACTGGTGTAAAGGGA

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FIGURE 4804

MNVGTAHSEVNPENTRVMNSRGIWLSYVLAIGLLHIVLLSIPFVSVPVWTLTNLIHNMGMYIFLHTVKGTPFETP
DQGKARLLTHWEQMDYGVQFTASRKFLTITPIVLYFLTSFYTKYDQIHFVLNTVSLMSVLIPKLPQLHGVRIFGI
NKY

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FIGURE 4805

GAATTGCGGCCGCTGGTTTGCAGCTGCTCCGTCATCGTGCGGCCCGACGCTATCTCGCGCTCGTGTGCAGGCCC
GGCTCGGCTCCTGGTCCCCGGTGCGAGGGTTAACGCGAGGCCCGGCCCTCGGTCCCCGGACTAGGCCGTGACCCC
GGGTGCCATGAAGCAGGAGGGCTCGGCGCGGCGCCGCGGCGGACAAGGCGAAACCGCCGCCCGCGGAGGAGA
ACAAGAACCCCCACCGCCGCCGCCCGCCCGCCAGGATGTGGAGATGAAAGAGGAGGCAGCGACGGGTGGCGGGTCAAC
GGGGGAGGCAGACGGCAAGACGGCGGGCGGAGCGGTTGAGCACTCCCAGCGAGAGCTGGACACAGTCACCTTGGA
GGACATCAAGGAGCACGTGAAACAGCTAGAGAAAGCGTTTCAGGCAAGGAGCCGAGATTCTGTGCTGCGGGCCCT
GCGGATGCTGCCTTCCACATCAGCGCCCTCAACCACTATGTTCTGTATAAGGCTGTGCAGGGCTTCTTCACTTC
AAATAATGCCACTCGAGACTTTTTGCTCCCTTCTGGAAGAGCCCATGGACACAGAGGCTGATTTACAGTTCCG
TCCCCGCACGGGAAAAGCTGCGTCGACACCCCTCCTGCCTGAAGTGGAAGCCTATCTCCAACCTCTCGTGGTCAT
CTTCATGATGAACAGCAAGCGCTACAAAGAGGCACAGAAGATCTCTGATGATCTGATGCAGAAGATCAGTACTCA
GAACCGCCGGGGCCCTAGACCTTGTAGCCGCAAAGTGTTACTATTATCAGCCCCGGGTCTATGAGTTCTTGACAA
GCTGGATGTGGTGCGCAGCTTCTTGATGCTCGGCTCCGGACAGCTACGCTTCGGCATGACGCAGACGGGCAGGC
CACCTGTGTAACCTCCTGCTGCGGAATTACCTACACTACAGCTTGTACGACCAGGCTGAGAAGCTGGTGTCCAA
GTCTGTGTTCCAGAGCAGGCCAACAACAATGAGTGGGCCAGGTACCTCTACTACACAGGGCGAATCAAAGCCAT
CCAGCTGGAGTACTCAGAGGCCCGGAGAACGATGACCAACGCCCTTCGCAAGGCCCTCAGCACACAGCTGTCCG
CTTCAAACAGACGGTGCACAAGCTTCTCATCGTGGTGGAGCTGTTGCTGGGGAGATCCCTGACCGGCTGCAGTT
CCGCCAGCCCTCCCTCAAGCGCTCACTCATGCCCTATTTCTTCTGACTCAAGCTGTGAGGACAGGAAACCTAGC
CAAGTTCAACCAGGTCCTGGATCAGTTTGGGGAGAAGTTTCAAGCAGATGGGACCTACACCTAATTATCCGGCT
GCGGCACAACGTGATTAAGACAGGTGTACGCATGATCAGCCTCTCCTATTCCCGAATCTCCTTGGCTGACATCGC
CCAGAAGCTGCAGTTGGATAGCCCCGAAGATGCAGAGTTCATTGTTGCCAAGGCCATCCGGGATGGTGTCAATTGA
GGCCAGCATCAACCACGAGAAGGGCTATGTCCAATCCAAGGAGATGATTGACATCTATTCCACCCGAGAGCCCCA
GCTAGCCTTCCACCAGCGCATCTCCTTCTGCCTAGATATCCACAACATGTCTGTCAAGGCCATGAGGTTTCTCTCC
CAAATCGTACAACAAGGACTTGGAGTCTGCAGAGGAACGGCGTGAGCGAGAACAGCAGGACTTGGAGTTTGCCAA
GGAGATGGCAGAAGATGATGATGACAGCTTCCCTTGAGCTGGGGGGCTGGGGAGGGGTAGGGGGAATGGGGACAG
GCTCTTTCCCCCTTGGGGGTCCCCTGCCCAGGGCACTGTCCCCATTTCCCACACACAGCTCATATGCTGCATT
GTGCAGGGGGTGGGGGTGCTGGGAGCCAGCCACCCTGACCTCCCCAGGGCTCCTCCCCAGCCGGTGACTTACTG
TACAGCAGGCAGGAGGGTGGGCAGGCAACCTCCCCGGGCAGGGTCTTGCCAGCAGTGTGGGAGCAGGAGGGGAA
GGATAGTTCTGTGTACTCTTTAGGGAGTGGGGGACTAGAACTGGGATGTCTTGGCTTGTATGTTTTTTGAAGCT
TCGATTATGATTTTTAAACAATAAAAAAGTTCTCCCAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAGCGGCCGCGAAT
TC

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FIGURE 4806

MKQEGSARRRGADKAKPPPGGGEQEPPPPAPQDVEMKEEAATGGGSTGEADGKTAAAVEHSQRELDVTLEDI
KEHVKQLEKAVSGKEPRFVLRALRMLPSTSRRLNHVLYKAVQGFFTSNNATRDFLLPFLEEPMDTEADLQFRPR
TGKAASTPLLPEVEAYLQLLVVFMMNSKRYKEAQKISDDLQKISTQNRALDLVAAKCYYYHARVYEFLDKLD
VVRSLHARLRTATLRHDADGQATLLNLLLRNYLHYSLYDQAEKLVSKSVFPEQANNNEWARYLYYTGRKAIQL
EYSEARRMTNALRKAPQHTAVGFKQTVHKLLIVVELLLGEIPDRLQFRQPSLKRSMPYFLLTQAVRTGNLAKF
NQVLDQFGEKFQADGTYTLIIRLRHNVIKTGVRMISLSYSRISLADIAQKLQLDSPEDAEFIVAKAIRDGVIEAS
INHEKGYVQSKEMIDIYSTREPQLAFHQRI SFCLDIHNMSVKAMRFPPKSYNKDLESAEERREREQQDLEFAKEM
AEDDDDSFP

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FIGURE 4807

CTCCTCTCCAGCCCTTCTCCTGTGTGCCTGCCTCCTGCCGCCGCCACCATGACCACCTCCATCCGCCAGTTCACC
TCTCCAGCTCCATCAAGGGCTCCTCCGGCCTGGGGGGCGGCTCGTCCCGCACCTCCTGCCGGCTGTCTGGCGGC
CTGGGTGCCGGCTCCTGCAGGCTGGGATCTGCTGGCGGCCTGGGCAGCACCTCGGGGGTAGCAGCTACTCCAGC
TGCTACAGCTTTGGCTCTGGTGGTGGCTATGGCAGCAGCTTTGGGGGTGTTGATGGGCTGCTGGCTGGAGGTGAG
AAGGCCACCATGCAGAACCTCAATGACCGCCTGGCCTCCTACCTGGACAAGGTGCGTGCCCTGGAGGAGGCCAAC
ACTGAGCTGGAGGTGAAGATCCGTGACTGGTACCAGAGGCAGGCCCCGGGGCCCGCCGTGACTACAGCCAGTAC
TACAGGACAATTGAGGAGCTGCAGAACAAGATCCTCACAGCCACCGTGGACAATGCCAACATCCTGCTACAGATT
GACAATGCCCCGTCTGGCTGCTGATGACTTCCGCACCAAGTTTGAGACAGAGCAGGCCCTGCGCCTGAGTGTGGAG
GCCGACATCAATGGCCTGCGCAGGGTGCTGGATGAGCTGACCCTGGCCAGAGCCGACCTGGAGATGCAGATTGAG
AACCTCAAGGAGGAGCTGGCCTACCTGAAGAAGAACCACGAGGAGGAGATGAACGCCCTGCGAGGCCAGGTGGGT
GGTGAGATCAATGTGGAGATGGACGCTGCCCCAGGCGTGGACCTGAGCCGCATCCTCAACGAGATGCGTGACCAG
TATGAGAAGATGGCAGAGAAGAACCGCAAGGATGCCGAGGATTGGTTCTTCAGCAAGACAGAGGAACCTGAACCGC
GAGGTGGCCACCAACAGTGAGCTGGTGCAGAGTGGCAAGAGTGAGATCTCGGAGCTCCGGCGCACCATGCAGGCC
TTGGAGATAGAGCTGCAGTCCCAGCTCAGCATGAAAGCATCCCTGGAGGGCAACCTGGCGGAGACAGAGAACCGC
TACTGCGTGAGCTGTCCCAGATCCAGGGGCTGATTGGCAGCGTGGAGGAGCAGCTGGCCCAGCTTCGCTGCGAG
ATGGAGCAGCAGAACCAGGAATACAAAATCCTGCTGGATGTGAAGACGCGGCTGGAGCAGGAGATTGCCACCTAC
CGCCGCTGCTGGAGGGAGAGGATGCCACCTGACTCAGTACAAGAAAGAACCGGTGACCACCCGTCAGGTGCGT
ACCATTGTGGAAGAGGTCCAGGATGGCAAGGTATCTCCTCCCGCGAGCAGGTCCACCAGACCACCCGCTAGAGGA
CTCAGCTACCCCGGCCGGCCACCCAGGAGGCAGGGAGCAGCCGCCCATCTGCCCCACAGTCTCCGGCCTCTCCA
GCCTCAGCCCCCTGCTTCAGTCCCTTCCCCATGCTTCCTTGCTGATGACAATAAAGCTTGTTGACTCAGCTAAA
AAAAAAAAAAAA

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FIGURE 4808

MTTSIRQFTSSSSIKGSSGLGGGSSRTSCRLSGGLGAGSCRLGSAGGLGSTLGGSSYSSCYSGSGGGYGSSFGG
VDGLLAGGEKATMQNLNDRLASYLDKVRALEEANTELEVKIRDWYQRQAPGPARDYSQYYRTIEELQNKILTATV
DNANILLQIDNARLAADDFR TKFETE QALRLSVEADINGLRRVLDELTLARADLEMQIENLKEELAYLKKNH
MNALRGQVGGEINVEDAAPGV DLSRILNEMRDQYEKMAEKNRKAEDWFFSKTEELNREVATNSELVQSGKSEI
SELRRTMQALEIELQSQLSMKASLEG NLAETENRYCVQLSQIQGLIGSVEEQLAQLRCEMEQQNQEYKILLDVKT
RLEQEIATYRRLLEGEDAHLTQYKKEPVTTTQVRTIVEEVQDGKVISSREQVHQTTTR

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FIGURE 4809

ATGACCACCTGCAGCCGCCAGTTACCTCCTCCAGCTCCATGAAGGGCTCCTGCGGCATCGGAGGCGGCATCGGG
GGCGGCTCCAGCCGCATCTCCTCCGTCCTGGCCGGAGGGTCCTGCCGTGCCCCAGCACCTACGGGGGCGGCCCTG
TCTGTCTCCTCTCGCTTCTCCTCTGGGGGAGCCTGCGGGCTGGGGGGCGGCTATGGCGGTGGCTTCAGCAGCAGC
AGCAGCTTTGGTAGTGGCTTCGGGGGAGGATATGGTGGTGGCCTTGGTGCTGGCTTCGGTGGTGGCTTGGGTGCT
GGCTTTGGTGGTGGTTTTGCTGGTGGTGATGGGCTTCTGGTGGGCAGTGAGAAGGTGACCATGCAGAACCTCAAT
GACCGCCTGGCCTCCTACCTGGACAAGGTGCGTGCTCTGGAGGAGGCCAACGCCGACCTGGAAGTGAAGATCCGT
GACTGGTACCAGAGGCAGCGGCCCACTGAGATCAAAGACTACAGTCCCTACTTCAAGACCATCGAGGACCTGAGG
AACAAGATCATTGCGGCCACCATTGAGAATGCGCAGCCCATTTTGAGATTGACAATGCCAGGCTGGCAGCCGAT
GACTTCAGGACCAAGTATGAGCACGAAGTGGCCCTGCGGCAGACTGTGGAGGCCGACGTCAATGGCCTGCGCCGG
GTGTTGGATGAGCTGACCCTGGCCAGGACTGACCTGGAGATGCAGATCGAAGGCCTGAAGGAGGAGCTGGCCTAC
CTGAGGAAGAACCACGAGGAGGAGATGCTTGCTCTGAGAGGTGAGACCGCGGAGATGTGAACGTGGAGATGGAT
GCTGCACCTGGCGTGGACCTGAGCCGCATCCTGAATGAGATGCGTGACCAAGTACGAGCAGATGGCAGAGAAAAAC
CGCAGAGACGCTGAGACCTGGTTCTGAGCAAGACCGAGGAGCTGAACAAAGAAGTGGCCTCCAACAGCGAACTG
GTACAGAGCAGCCGCAGTGAGGTGACGGAGCTCCGGAGGGTGCTCCAGGGCCTGGAGATTGAGCTGCAGTCCCAG
CTCAGCATGAAAGCATCCCTGGGAGAACAGCCTGGAGGAGACCAAAGGCCGCTACTGCATGCAGCTGTCCCAGATC
CAGGGACTGATTGGCAGTGTGGAGGAGCAGCTGGCCCAGCTACGCTGTGAGATGGAGCAGCAGAGCCAGGAGTAC
CAGATCTTGCTGGATGTGAAGACGCGGCTGGAGCAGGAGATTGCCACCTACCGCCGCCTGCTGGAGGGCGAGGAT
GCCCACCTTTCTCTCCAGCAAGCATCTGGCCAATCCTATTCTTCCCGCGAGGTCTTCACCTCCTCCTCGTCCTCT
TCGAGCCGTCAGACCCGGCCCCATCCTCAAGGAGCAGAGCTCATCCAGCTTCAGCCAGGGCCAGAGCTCCTAG

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FIGURE 4810

CGGGGGTTGCTCCGTCCGTGCTCCGCCCTCGCCATGACTTCCTACAGCTATCGCCAGTCGTCGGCCACGTCGTCCT
TCGGAGGCCTGGGCGGCGGCTCCGTGCGTTTTGGGCCGGGGGTCGCTTTTCGCGCGCCCAGCATTCACGGGGGCT
CCGGCGGCGCGGGCGTATCCGTGTCCTCCGCCCGCTTTGTGTCTCGTCCTCCTCGGGGGGCTACGGCGGCGGCT
ACGGCGGCGTCTGACCGCGTCCGACGGGCTGCTGGCGGGCAACGAGAAGCTAACCATGCAGAACCTCAACGACC
GCCTGGCCTCTTACCTGGACAAGGTGCGCGCCCTGGAGGCGGCCAACGGCGAGCTAGAGGTGAAGATCCGCGACT
GGTACCAGAAGCAGGGGCTGGGCCCTCCCGCGACTACAGCCACTACTACACGACCATCCAGGACCTGCGGGACA
AGATTCTTGGTGCCACCATTGAGAACTCCAGGATTGTCTGCAGATCGACAACGCCCGTCTGGCTGCAGATGACT
TCCGAACCAAGTTTGAGACGGAACAGGCTCTGCGCATGAGCGTGGAGGCCGACATCAACGGCCTGCGCAGGGTGC
TGGATGAGCTGACCCTGGCCAGGACCGACCTGGAGATGCAGATCGAAGGCCTGAAGGAAGAGCTGGCCTACCTGA
AGAAGAACCATGAGGAGGAAATCAGTACGCTGAGGGGCCAAGTGGGAGGCCAGGTGAGTGTGGAGGTGGATTCCG
CTCCGGGCACCGATCTCGCCAAGATCCTGAGTGACATGCGAAGCCAATATGAGGTGATGGCCGAGCAGAACC
AGGATGCTGAAGCCTGGTTTACCAGCCGACTGAAGAATTGAACCGGGAGGTGCTGGCCACACGGAGCAGCTCC
AGATGAGCAGGTCCGAGGTTACTGACCTGCGGCGCACCCCTTCAGGGTCTTGAGATTGAGCTGCAGTCACAGCTGA
GCATGAAAGCTGCCTTGGAAGACACACTGGCAGAAACGGAGGCGCGCTTTGGAGCCCAGCTGGCGCATATCCAGG
CGCTGATCAGCGGTATTGAAGCCCAGCTGGCGGATGTGCGAGCTGATAGTGAGCGGCAGAAATCAGGAGTACCAGC
GGCTCATGGACATCAAGTCGCGGCTGGAGCAGGAGATTGCCACCTACCGCAGCCTGCTCGAGGGACAGGAAGATC
ACTACAACAATTTGTCTGCCTCCAAGGTCCTCTGAGGCAGCAGGCTCTGGGGCTTCTGCTGTCTTTGGAGGGTG
TCTTCTGGGTAGAGGGATGGGAAGGAAGGGACCCCTTACCCCCGGCTCTTCTCCTGACCTGCCAATAAAAAATTTAT
GGTCCAAGGG

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FIGURE 4811

MTSYSYRQSSATSSFGGLGGGSVRFPGVAFRAPS IHGGSGGRGVSVSSARFVSSSSSGGYGGGYGGVLTASDGL
LAGNEKLTMQNLNDR LASYLDKVR ALEAANGELEV KIRDWYQKQGP GSPRDYSHYYTTIQDLRDKILGATIENSR
IVLQIDNARLAADDFRTKFETE QALRMSVEADINGLRRVLDELT LARTDLEMQIEGLKEELAYLKKNH EEEISTL
RGQVGGQVSVEVDSAPGTD LAKILSDMRSQYEVMAEQNRKDAEAWFTSRTEELNREVAGHTEQLQMSRSEVTDLR
RTLQGLEIELQSQLSMKAALED TLAETEARFGAQLAHIQALISGIEAQLADVRADSERQNQEYQRLMDIKSRLEQ
EATYRSLLLEGQEDHYNNLSASKVL

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FIGURE 4812

GGTACCTCCTGCCAGCACCTCTTGGGTTTGCTGAGAACTCACGGGCTCCAGCTACCTGGCCATGACCACCACATT
TCTGCAAACCTTCTTCCCTCCACCTTTGGGGGTGGCTCAACCCGAGGGGGTTCCCTCCTGGCTGGGGGAGGTGGCTT
TGGTGGGGGGAGTCTCTCTGGGGGAGGTGGAAGCCGAAGTATCTCAGCTTCTTCTGCTAGGTTTGTCTCTTCAGG
GTCAGGAGGAGGATATGGGGGTGGCATGAGGGTCTGTGGCTTTGGTGGAGGGGCTGGTAGTGTTTTCGGTGGAGG
CTTTGGAGGGGGCGTTGGTGGGGGTTTTGGTGGTGGCTTTGGTGGTGGCGATGGTGGTCTCCTCTCTGGCAATGA
GAAAATTACCATGCAGAACCTCAATGACCGCCTGGCCTCCTACCTGGACAAGGTACGTGCCCTGGAGGAGGCCAA
TGCTGACCTGGAGGTGAAGATCCATGACTGGTACCAGAAGCAGACCCAGCCAGCCAGCCAGAATGCGACTACAGCCA
ATACTTCAAGACCATTGAAGAGCTCCGGGACAAGATCATGGCCACCACCATCGACAACCTCCCGGGTCATCCTGGA
GATCGACAATGCCAGGCTGGCTGCGGACGACTTCAGGCTCAAGTATGAGAATGAGCTGGCCCTGCGCCAGGGCGT
TGAGGCTGACATCAACGGCTTGCGCCGAGTCTGGATGAGCTGACCCTGGCCAGGACTGACCTGGAGATGCAGAT
CGAGGGCCTGAATGAGGAGCTAGCCTACCTGAAGAAGAACCACGAAGAGGAGATGAAGGAGTTCAGCAGCCAGCT
GGCCGGCCAGGTCAATGTGGAGATGGACGCAGCACCGGGTGTGGACCTGACCCGTGTGCTGGCAGAGATGAGGGA
GCAGTACGAGGGCCATGGCGGAGAAGAACCGCCGGGATGTGAGGCGCTGGTTCTTCAGCAAGACTGAGGAGCTGAA
CAAAGAGGTGGCCTCCAACACAGAAATGATCCAGACCAGCAAGACGGAGATCACAGACCTGAGACGCACGATGCA
GGAGCTGGAGATCGAGCTGCAGTCCCAGCTCAGCATGAAAGCTGGGCTGGAGAACTCACTGGCCGAGACAGAGTG
CCGCTATGCCACGCAGCTGCAGCAGATCCAGGGGCTCATTGGTGGCCTGGAGGGCCAGCTGAGTGAGCTCCGATG
CGAGATGGAGGCTCAGAACCAGGAGTACAAGATGCTGCTTGACATAAAGACACGGCTGGAGCAGGAGATCGCTAC
TTACCGCAGCCTGCTCGAGGGCCAGGATGCCAAGATGGCTGGCATTGGCATCAGGGAAGCCTCTTCAGGAGGTGG
TGGTAGCAGCAGCAATTTCCACATCAATGTAGAAGAGTCAGTGGATGGACAGGTGGTTTCTTCCCACAAGAGAGA
AATCTTAAGTGTCTATTGCAGGAGAAACGTCCCTTGCCACTCCCCACTCTCATCAGGCCAAGTGGAGGACTGGCCA
GAGGGCCTGCACATGCAAACTCCAGTCCCTGCCTTCAGAGAGCTGAAAAGGGTCCCTCGGTCTTTTATTTAGGG
CTTTGCATGCGCTCTATTCCCCCTCTGCCTCTCCCCACCTTCTTTGGAGCAAGGAGATGCAGCTGTATTGTGTAA
CAAGCTCATTGTGTACAGTGTCTGTTTGTATGTAATAAAGAATTACTTTTCTTTTGCAAAT

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FIGURE 4813

MTTFLQTSSSTFGGGSTRGGSLLAGGGGFGGGSLSGGGGSRSISASSARFVSSGSGGGYGGGMRVCGFGGGAGS
VFGGGFGGGVGGGFGGGFGGGDGGLLSGNEKITMQNLNDRLASYLDKVRALEEANADLEVKIHDWYQKQTPASPE
CDYSQYFKTIEELRDKIMATTIDNSRVILEIDNARLAADDFFRLKYENELALRQGV EADINGLRRVLDELTLARTD
LEMQIEGLNEELAYLKKNHEEMKEFSSQLAGQVNVEMDAAPGVDLTRVLAEMREQYEAMAENRRDVEAWFFSK
TEELNKEVASNTEMIQTSKTEITDLRRITMQELEIELQSLSMKAGLENSLAETECRYATQLQQIQGLIGGLEAQL
SELRCEMEAQNQEFYKMLLDIKTRLEQEIATYRSLLLEGQDAKMAGIGIREASSGGGGSSSNFHINVEESVDGQVVS
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FIGURE 4814

GGCCAAGCAAGCTTCTATCTGCACCTGCTCTCAATCCTGCTCTCACCATGAGCCTCCGCCTGCAGAGCTCCTCTG
CCAGCTATGGAGGTGGTTTTCGGGGGTGGCTCTTGCCAGCTGGGAGGAGGCCGTGGTGTCTCTACCTGTTCAACTC
GGTTTGTGTCTGGGGGATCAGCTGGGGGCTATGGAGGCGGCGTGAGCTGTGGTTTTGGTGGAGGGGCTGGTAGTG
GCTTTGGAGGTGGCTATGGAGGTGGCCTTGGAGGTGGCTATGGAGGTGGCCTTGGAGGTGGCTTTGGTGGGGGTT
TTGCTGGTGGCTTTGTTGACTTTGGTGCTTGTGATGGCGGCCCTCCTCACTGGCAATGAGAAGATCACCATGCAGA
ACCTCAACGACCGCCTGGCTTTCCTACCTGGAGAAGGTGCGCGCCCTGGAGGAGGCCAACGCTGACCTGGAGGTGA
AGATCCGTGACTGGCACCTGAAGCAGAGCCCAGCTAGCCCTGAGCGGGACTACAGCCCCTACTACAAGACCATTG
AAGAGCTCCGGGACAAGATCCTGACCGCCACCATTGAAAACAACCGGGTCATCCTGGAGATTGACAATGCCAGGC
TGGCTGTGGACGACTTCAGGCTCAAGTATGAGAATGAGCTGGCCCTGCGCCAGAGCGTGGAGGCCGACATCAACG
GCCTGCGCCGGGTGCTGGATGAGCTCACTCTGTCTAAGACTGACCTGGAGATGCAGATCGAGAGCCTGAATGAAG
AGCTAGCCTACATGAAGAAGAACCATGAAGAGGAGATGAAGGAATTTAGCAACCAGGTGGTCGGCCAGGTCAACG
TGGAGATGGATGCCACCCCAGGCATTGACCTGACCCGCGTGCTGGCAGAGATGAGGGAGCAGTACGAGGCCATGG
CAGAGAGGAACCGCCGGGATGCTGAGGAATGGTTCCACGCCAAGAGTGCAGAGCTGAACAAGGAGGTGTCTACCA
ACACTGCCATGATTGAGACCAGCAAGACAGAGATCACGGAGCTCAGGCGCACGCTCCAAGGCCCTGGAGATTGAGC
TGCAGTCCCAGCTGAGCATGAAAGCGGGGCTGGAGAACACGGTGGCAGAGACGGAGTGCCGCTATGCCCTGCAGC
TGCAGCAGATCCAGGGACTCATCAGCAGCATCGAGGCCAGCTGAGCGAGCTCCGCAGTGAGATGGAGTGCCAGA
ACCAAGAGTACAAGATGCTGCTGGACATCAAGACACGTCTGGAGCAGGAGATCGCCACCTACCGCAGCCTGCTCG
AGGGCCAGGACGCCAAGAAGCGTCAGCCCCCGTTAGCACCTCTGTTACCACGACTTCTAGTGCCTCTGTTACCACC
ACCTCTAATGCCTCTGGTGCCTGCACTTCTGATGTCCGTAGGCCTTAAATCTGCCTGGCGTCCCCTCCCTCTGTC
TTCAGCACCCAGAGGAGGAGAGAGCCGGCAGTTCCCTGCAGGAGAGAGGAGGGGCTGCTGGACCCAAGGCTCAGT
CCCTCTGCTCTCAGGACCCCCTGTCTGACTCTCTCCTGATGGTGGGCCCTCTGTGCTCTTCTCTTCCGGTCGGA
TCTCTCTCCTCTCTGACCTGGATACGCTTTGGTTTTCTCAACTTCTCTACCCCAAAGAAAAGATTATTCAATAAAG
TTTCTGCCTTTCTGCAAACATAAAAA

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FIGURE 4815

MSLRLQSSSASYGGGFGGGSCQLGGGRGVSTCSTRFVSGGSAGGYGGGVSCGFGGGAGSGFGGGYGGGLGGGYGG
GLGGGFGGGFAGGFVDFGACDGGLLTGNEKITMQNLNDRLASYLEKVRALEEANADLEVKIRDWHLKQSPASPER
DYSPYYKTIEELRDKILTATIENNRVILEIDNARLAVDDFRLKYENELALRQSVEADINGLRRVLDELTLTKTDL
EMQIESLNEELAYMKKNHEEEMKEFSNQVVGQVNVEMDATPGIDLTRVLAEMREQYEAMAERNRRDAEEWFHAKS
AELNKEVSTNTAMIQTSKTEITELRRTLQGLEIELQSQLSMKAGLENTVAETECRYALQLQQIQGLISSIEAQLS
ELRSEMECQNQEYKMLLDIKTRLEQEIATYRSLLLEGQDAKKRQPP

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FIGURE 4816

ACCCGAGCACCTTCTCTTCACTCAGCCAACTGCTCGCTCGCTCACCTCCCTCCTCTGCACCATGACTACCTGCAG
CCGCCAGTTCACCTCCTCCAGCTCCATGAAGGGCTCCTGCGGCATCGGGGGCGGCATCGGGGGCGGCTCCAGCCG
CATCTCCTCCGTCTCTGGCCGGAGGGTCTTGCCGCGCCCCAGCACCTACGGGGGCGGCCTGTCTGTCTCATCCTC
CCGCTTCTCCTCTGGGGGAGCCTACGGGCTGGGGGGCGGCTATGGCGGTGGCTTCAGCAGCAGCAGCAGCAGCTT
TGGTAGTGGCTTTGGGGGAGGATATGGTGGTGGCCTTGGTGTGGCTTGGGTGGTGGCTTTGGTGGTGGCTTTGC
TGGTGGTGTATGGGCTTCTGGTGGGCACTGAGAAGGTGACCATGCAGAACCTCAATGACCGCCTGGCCTCCTACCT
GGACAAGGTGCGTGCTCTGGAGGAGGCCAACGCCGACCTGGAAGTGAAGATCCGTGACTGGTACCAGAGGCAGCG
GCCTGCTGAGATCAAAGACTACAGTCCCTACTTCAAGACCATTGAGGACCTGAGGAACAAGATTCTCACAGCCAC
AGTGGACAATGCCAATGTCCTTCTGCAGATTGACAATGCCCGTCTGGCCGCGGATGACTTCCGCACCAAGTATGA
GACAGAGTTGAACCTGCGCATGAGTGTGGAAGCCGACATCAATGGCCTGCGCAGGGTGTGGACGAACCTGACCTT
GGCCAGAGCTGACCTGGAGATGCAGATTGAGAGCCTGAAGGAGGAGCTGGCCTACCTGAAGAAGAACCACGAGGA
GGAGATGAATGCCCTGAGAGGCCAGGTGGGTGGAGATGTCAATGTGGAGATGGACGCTGCACCTGGCGTGGACCT
GAGCCGCATTCTGAACGAGATGCGTGACCAAGTATGAGAAGATGGCAGAGAAGAACCAGCAAGGATGCCGAGGAATG
GTTCTTCACCAAGACAGAGGAGCTGAACCGCGAGGTGGCCACCAACAGCGAGCTGGTGCAGAGCGGCAAGAGCGA
GATCTCGGAGCTCCGGCGCACCATGCAGAACCTGGAGATTGAGCTGCAGTCCCAGCTCAGCATGAAAGCATCCCT
GGAGAACAGCCTGGAGGAGACCAAAGGTGCTACTGCATGCAGCTGGCCCAGATCCAGGAGATGATTGGCAGCGT
GGAGGAGCAGCTGGCCCAGCTCCGCTGCGAGATGGAGCAGCAGAACCAGGAGTACAAGATCCTGCTGGACGTGAA
GACGCGGCTGGAGCAGGAGATCGCCACCTACCGCGCCTGCTGGAGGGCGAGGACGCCACCTCTCCTCCTCCCA
GTTCTCCTCTGGATCGCAGTCATCCAGAGATGTGACCTCCTCCAGCCGCCAAATCCGCACCAAGGTATGGATGT
GCACGATGGCAAGGTGGTGTCCACCCACGAGCAGGTCTTTCGCACCAAGAAGTGAGGCTGCCAGCCCCGCTCAG
GCCTAGGAGGCCCCCGTGTGGACACAGATCCCCTGGAAGATCCCCTCTCCTGCCCAAGCACTTCACAGCTGGA
CCCTGCTTCACCTCACCCCTCCTGGCAATCAATACAGCTTCATTATCTGAGTTGCAT

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FIGURE 4817

MTTCSRQFTSSSSMKGSCGIGGGIGGGSSRISSVLAGGSCRAPSTYGGGLSVSSSRFSSGGAYGLGGGYGGGFSS
SSSSFGSGFGGGYGGGLGAGLGGGFGGGFAGGDGLLVGSEKVTMQNLNDRLASYLKVRALEEANADLEVKIRDW
YQRQRP AEIKDYSPYFKTIEDLRNKILTATVDNANVLLQIDNARLAADDFRTKYETELNLRMSVEADINGLRRVL
DELTARADLEMQIESLKEELAYLKKNHEEEMNALRGQVGGDVNVEMDAAPGVDLSRILNEMRDQYEKMAEKNRK
DAEEWFFTKTEELNREVATNSELVQSGKSEISELRRTMQNLEIELQSQLSMKASLENSLEETKGRYCMQLAQIQE
MIGSVEEQLAQLRCEMEQQNQEYKILLDVKTRLEQEIATYRRLLEGEDAHLSSSQFSSGSQSSRDVTSSSRQIRT
KVMDVHDGKVVSTHEQVLRITKN

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FIGURE 4818

AGCCCCCTGCCCTCGCCGCCCGCCGCCTGCCTGGGCCGGGCGGAGGATGCGGCGCAGCGCCTCGGCGGGCCAGGC
TTGCTCCCCCTCCGGCACGCCTGCTAACTTCCCCCGCTACGTCCCCGTTGCCCCGCCGGGCGCCCCGTCTCCCCG
CGCCCTCCGGGTTCGGGTCTCTCCAGGAGCGCCAGGCGCTGCCGCCGTGTGCCCTCCGCCGCTCGCCCGCGCGCCCG
CGCTCCCCCGCTGCGCCAGCGCCCCGCGCCCGCGCCAGTCTCGGGCGGTTCATGCTGCCCCCTGCTGCTCGTGG
CCGCCCTGCTGCTGGCCGCCGGGCCCCGGGCCGAGCCTGGGCGACGAAGCCATCCACTGCCCGCCCTGCTCCGAGG
AGAAGCTGGCGCGCTGCCGCCCCCGCTGGGCTGCGAGGAGCTGGTGCGAGAGCCGGGCTGCGGCTGTTGCGCCA
CTTGCGCCCTGGGCTTGGGGATGCCCTGCGGGGTGTACACCCCCGTTGCGGCTCGGGCCTGCGCTGCTACCCGC
CCCAGGGGTGGAGAAGCCCTGCACACACTGATGCACGGGCAAGGCGTGTGCATGGAGCTGGCGGAGATCGAGG
CCATCCAGGAAAGCCTGCAGCCCTCTGACAAGGACGAGGGTGACCACCCCAACAACAGCTTCAGCCCTGTAGCG
CCCATGACCGCAGGTGCCTGCAGAAGCACTTCGCCAAAATTGAGACCGGAGCACCAGTGGGGGCAAGATGAAGG
TCAATGGGGCGCCCCGGGAGGATGCCCGGCCTGTGCCCGAGGGCTCCTGCCAGAGCGAGCTGCACCGGCGCTGG
AGCGGCTGGCCGCTTCACAGAGCCGCACCCACGAGGACCTCTACATCATCCCCATCCCCAACTGCGACCGCAACG
GCAACTTCCACCCCAAGCAGTGTACCCAGCTCTGGATGGGCGAGCTGGCAAGTGTGTTGTTGGACCGGAAGA
CGGGGGTGAAGCTTCCGGGGGGCCTGGAGCCAAAGGGGGAGCTGGACTGCCACCAGCTGGCTGACAGCTTTCGAG
AGTGAGGCCTGCCAGCAGGCCAGGGACTCAGCGTCCCCTGCTACTCCTGTGCTCTGGAGGCTGCAGAGCTGACCC
AGAGTGGAGTCTGAGTCTGAGTCTGCTCTGCTGCGGCCAGAAAGTTTCCCTCAAATGCGCGTGTGCACGTGT
GCGTGTGCGTGCCTGT
TTGGTGTACACAGCCCAAGAGGACTGAGACTGGCACTTAGCCCAAGAGGTCTGAGCCCTGGTGTGTGTTCAGAT
CGATCCTGGATTCACTCACTCACTCATTCTTCACTCATCCAGCCACCTAAAAACATTTACTGACCATGTACTAC
GTGCCAGCTCTAGTTTTTCAGCCTTGGGAGGTTTTATTCTGACTTCCCTCTGATTTTGGCATGTGGAGACACTCCTA
TAAGGAGAGTTCAAGCCTGTGGGAGTAGAAAAATCTCATTCCCAGAGTCAGAGGAGAAGAGACATGTACCTTGAC
CATCGTCTTCTCTCAAGCTAGCCAGAGGGTGGGAGCCTAAGGAAGCGTGGGGTAGCAGATGGAGTAATGGTCA
CGAGGTCCAGACCCACTCCCAAGCTCAGACTTGCCAGGCTCCCTTTCTCTTCTTCCCCAGGTCTTCTTTTAGG
TCTGGTTGTTGCACCATCTGCTTGGTTGGCTGGCAGCTGAGAGCCCTGCTGTGGGAGAGCGAAGGGGGTCAAAGG
AAGACTTGAAGCACAGAGGGCTAGGGAGGTGGGGTACATTTCTCTGAGCAGTCAGGGTGGGAAGAAAGAATGCAA
GAGTGGACTGAATGTGCCTAATGGAGAAGACCCACGTGCTAGGGGATGAGGGGCTTCTTGGGTCTGTTCCCTAC
CCCATTGTGGTACAGCCATGAAGTCACCGGGATGAACCTATCCTTCCAGTGGCTCGCTCCCTGTAGCTCTGCC
TCCCTCTCCATATCTCTTCCCTACACCTCCCTCCCCACACCTCCCTACTCCCTGGGCATCTTCTGGCTTGAC
TGATGGAAGGAGACTTAGGAACCTACCAGTTGGCCATGATGTCTTTTCTT

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FIGURE 4819A

CCCTTCACGACCGTCACCATGGAAGTGTCAACATTGCAGCCTGTAAATGAAAAATATGCAAGTCAACAAAATAAAG
AAAAATGAAGATGCTAAGAAAAGACTGTCTGTTGAAAGAATCTATCAAAAGAAAACACAATTGGAACATATTTTG
CTCCGCCAGACACCTACATTGGTTCTGTGGAATTAGTGACCCAGCAAATGTGGGTTTACGATGAAGATGTTGGC
ATTAACATATAGGGAAGTCACTTTTGTCTGTTGTACAAAATCTTTGATGAGATTCTAGTTAATGCTGCGGAC
AACAAACAAAGGGACCCAAAAATGCTTGTATTAGAGTCACAATTGATCCGAAAACAATTTAATTAGTATATGG
AATAATGGAAGGATTTCTGTTGTTGAACACAAAGTTGAAAAGATGTATGTCCAGCTCTCATATTTGGACAG
CTCCTAACTTCTAGTAACTATGATGATGATGAAAAGAAAGTGACAGGTGGTGGAAATGGCTATGGAGCCAAATTG
TGTAACATATTCAGTACCAAAATTTACTGTGGAACAGCCAGTAGAGAATACAAGAAAATGTTCAAACAGACATGG
ATGGATAATATGGGAAGAGCTGGTGAGATGGAACCTCAAGCCCTTCAATGGAGAAGATTATACATGTATCACCTTT
CAGCCTGATTTGTCTAAGTTTAAAAATGCAAAGCCTGGACAAAGATATTGTTGCACTAATGGTCAGAAGAGCATAT
GATATTGCTGGATCCACCAAAGATGTCAAAGTCTTTCTTAATGGAAATAAACTGCCAGTAAAAGGATTTCGTAGT
TATGTGGACATGTATTTGAAGGACAAGTTGGATGAAACTGGTAACTCCTTGAAAGTAATACATGAACAAGTAAAC
CACAGGTGGGAAGTGTGTTAACTATGAGTGAAAAGGCTTTTCAGCAAATTAGCTTTGTCAACAGCATTGCTACA
TCCAAGGGTGGCAGACATGTTGATTATGTAGCTGATCAGATTGTGACTAACTTGTGATGTTGTGAAGAAGAAG
AACAAAGGGTGGTGTGTCAGTAAAAGCACATCAGGTGAAAATCACATGTGGATTTTTGTAAATGCCTTAATTGAA
AACCCAACCTTTGACTCTCAGACAAAAGAAAACATGACTTTACAACCCAAGAGCTTTGGATCAACATGCCAATTG
AGTGAAAAATTTATCAAAGCTGCCATTGGCTGTGGTATTGTAGAAAGCATACTAACTGGGTGAAGTTAAGGCC
CAAGTCCAGTTAAACAAGAAAGTGTTCAGCTGTAAAACATAATAGAATCAAGGGAATTCCTCAAACCTCGATGATGCC
AATGATGCAGGGGGCCGAAACTCCACTGAGTGTACGCTTATCCTGACTGAGGGAGATTACGCCAAAACCTTGGCT
GTTTCAGGCCTTGGTGTGGTGGGAGAGACAAATATGGGGTTTTCCCTCTTAGAGGAAAAATACCTAATGTTCTGA
GAAGCTTCTCATAAGCAGATCATGGAATGCTGAGATTAACAATATCATCAAGATTGTGGGTCTTCAGTACAAG
AAAACTATGAAGATGAAGATTCAATTGAAGACGCTTCGTTATGGGAAGATAATGATTATGACAGATCAGGACCAA
GATGGTTCACACATCAAAGGCTTGCTGATTAATTTATCCATCACAACCTGGCCCTCTCTTCTGCGACATCGTTTT
CTGGAGGAATTTATCACTCCCATTGTAAAGGTATCTAAAAACAAGCAAGAAATGGCATTTTACAGCCTTCCCTGAA
TTTGAAGAGTGGAAGAGTTCTACTCCAAATCATAAAAAATGGAAAGTCAAATATTACAAAGGTTTGGGCACCAGC
ACATCAAAGGAAGCTAAAGAATACTTTGCAGATATGAAAAGACATCGTATCCAGTTCAAATATTCTGGTCTGAA
GATGATGCTGCTATCAGCCTGGCCTTTAGCAAAAAACAGATAGATGATCGAAAGGAATGGTTAACTAATTTTCATG
GAGGATAGAAGACAACGAAAGTTACTTGGGCTTCTGAGGATTACTTGTATGGACAACTACCACATATCTGACA
TATAATGACTTCATCAACAAGGAACCTTATCTTGTCTCAAATCTGATAACGAGAGATCTATCCCTTCTATGGTG
GATGGTTTGAACACAGGTGAGAGAAAGGTTTTGTTTACTTGTCTCAAACGGAATGACAAGCGAGAAGTAAAGGT
GCCCCAATTAGCTGGATCAGTGGCTGAAATGTCTTCTTATCATCATGGTGAGATGTCACTAATGATGACCATTATC
AATTTGGCTCAGAATTTTGTGGGTAGCAATAATCTAAACCTCTTGACGCCATTGGTCAGTTTGGTACCAGGCTA
CATGGTGGCAAGGATTCTGCTAGTCCACGATACATCTTACAATGCTCAGCTCTTGGCTCGATTGTTATTTCCA
CCAAAAGATGATCACACGTTGAAGTTTTTATATGATGACAACCAGCGTGTGAGCCTGAATGGTACATTCTATT
ATTCCCATGGTGCTGATAAATGGTGCTGAAGGAATCGGTACTGGGTGGTCTGCAAAATCCCCAACTTTGATGTG
CGTGAAATTGTAAATAACATCAGGCGTTTGATGGATGGAGAAGAACCTTTGCCAATGCTTCCAAGTTACAAGAAC
TTCAAGGGTACTATTGAAGAACTGGCTCCAAATCAATATGTGATTAGTGGTGAAGTAGCTATTCTTAATTCTACA
ACCATTGAAATCTCAGAGCTTCCCGTCAGAACATGGACCCAGACATACAAAGAACAAGTTCTAGAACCCATGTTG
AATGGCACCGAGAAGACACCTCCTCTCATAACAGACTATAGGGAATACCATACAGATACCAGCTGTGAAATTTGTT
GTGAAGATGACTGAAGAAAAACTGGCAGAGGCAGAGAGATTGGACTACACAAAGTCTTCAAACCTCCAACTAGT
CTCACATGCAACTCTATGGTGCTTTTTGACACGCTAGGCTGTTTAAAGAAATATGACACGGTGTGGATATTCTA
AGAGACTTTTTTGAACCTCAGACTTAAATATTATGGATTAAAGAAAAGAAATGGCTCCTAGGAATGCTTGGTGCTGAA
TCTGCTAAACTGAATAATCAGGCTCGCTTTATCTTAGAGAAAAATAGATGGCAAAATAATCATTGAAAAATAAGCCT
AAGAAAGAATTAATTAAGTTCTGATTTCAGAGGGGATATGATTCCGATCCTGTGAAGGCCTGGAAAGAAGCCAG
CAAAAGGTTCCAGATGAAGAAGAAAAATGAAGAGAGTGACAACGAAAAGGAAACTGAAAAGAGTGACTCCGTAACA
GATTCTGGACCAACCTTCAACTATCTTCTTGATATGCCCTTTGGTATTTAACCAAGGAAAAGAAAGATGAAGTC
TGCAGGCTAAGAAATGAAAAAGAACAGAGCTGGACACATTAAAAAGAAAGAGTCCATCAGATTTGTGGAAAGAA
GACTTGGCTACATTTATTGAAGAATTGGAGGCTGTTGAAGCCAAGGAAAAACAAGATGAACAAGTCGGACTTCCT

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FIGURE 4819B

GGGAAAGGGGGGAAGGCCAAGGGGAAAAAACACAAATGGCTGAAGTTTTGCCTTCTCCGCGTGGTCAAAGAGTC
ATTCCACGAATAACCATAGAAATGAAAGCAGAGGCAGAAAAAGAAAAATAAAAAAGAAATTAAGAAATGAAAATACT
GAAGGAAGCCCTCAAGAAGATGGTGTGGAAGTAGAAGGCCTAAAAACAAAGATTAGAAAAAGAAACAGAAAAAGAGAA
CCAGGTACAAAGACAAAGAAACAAACTACATTGGCATTTAAGCCAATCAAAAAAGGAAAGAAGAGAAATCCCTGG
TCTGATTGAGAATCAGATAGGAGCAGTGACGAAAGTAATTTTGATGTCCCTCCACGAGAAACAGAGCCACGGAGA
GCAGCAACAAAAACAAAATTACAAATGGATTTGGATTGAGATGAAGATTTCTCAGATTTTGATGAAAAAACTGAT
GATGAAGATTTTGTCCCATCAGATGCTAGTCCACCTAAGACCAAACTTCCCCAAAACCTAGTAACAAAGAACTG
AAACCACAGAAAAGTGTGCTGTCAGACCTTGAAGCTGATGATGTTAAGGGCAGTGTACCACTGTCTTCAAGCCCT
CCTGCTACACATTTCCCAGATGAAACTGAAATTACAAACCCAGTTCTAAAAAGAAATGTGACAGTGAAGAAGACA
GCAGCAAAAAGTCAGTCTTCCACCTCCACTACCGGTGCCAAAAAAAGGGCTGCCCAAAAGGAACTAAAAGGGAT
CCAGCTTTGAATTCTGGTGTCTCTCAAAAGCCTGATCCTGCCAAAACCAAGAATCGCCGCAAAAGGAAGCCATCC
ACTTCTGATGATTCTGACTCTAATTTTGAGAAAAATGTTTCGAAAGCAGTCACAAGCAAGAAATCCAAGGGGGAG
AGTGATGACTTCCATATGGACTTTGACTCAGCTGTGGCTCCTCGGGCAAAATCTGTACGGGCAAGAAACCTATA
AAGTACCTGGAAGAGTCAGATGAAGATGATCTGTTTTAAATGTGAGGCGATTATTTTAAGTAATTATCTTACCA
AGCCCAAGACTGGTTTTAAAGTTACCTGAAGCTCTTAACCTCCTCCCTCTGAATTTAGTTTGGGGAAGGTGTTT
TTAGTACAAGACATCAAAGTGAAGTAAAGCCCAAGTGTCTTTAGCTTT

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FIGURE 4820

GCCATCTGGGCCCAGGCCCCATGCCCCGAGGAGGGGTGGTCTGAAGCCCACCAGAGCCCCCTGCCAGACTGTCTG
CCTCCCTTCTGACTGTGGCCGCTTGGCATGGCCAGCAACAGCAGCTCCTGCCCACACCTGGGGGCGGGCACCTC
AATGGGTACCCGGTGCCCTCCCTACGCCTTCTTCTTCCCCCTATGCTGGGTGGACTCTCCCCGCCAGGCGCTCTG
ACCACTCTCCAGCACCAGCTTCCAGTTAGTGGAATATAGCACACCATCCCCAGCCACCATTGAGACCCAGAGCAGC
AGTTCTGAAGAGATAGTGCCAGCCCTCCCTCGCCACCCCTCTACCCCGCATCTACAAGCCTTGCTTTGTCTGT
CAGGACAAGTCTCAGGCTACCACTATGGGGTCAGCGCTGTGAGGGCTGCAAGGGCTTCTTCCGCCGCAGCATC
CAGAAGAACATGGTGTAACGTGTACCGGGACAAGAACTGCATCATCAACAAGGTGACCCGGAACCGCTGCCAG
TACTGCCGACTGCAGAAGTGCTTTGAAGTGGGCATGTCCAAGGAGTCTGTGAGAAACGACCGAAACAAGAAGAAG
AAGGAGGTGCCCAAGCCCGAGTGCTCTGAGAGCTACACGCTGACGCCGAGGTGGGGGAGCTCATTGAGAAGGTG
CGCAAAGCGCACACAGGAAACCTTCCCTGCCCTCTGCCAGCTGGGCAAATACACTACGAACAACAGCTCAGAACAA
CGTGTCTCTCTGGACATTGACCTCTGGGACAAGTTCAGTGAAGTCTCCACCAAGTGATCATTAAAGACTGTGGAG
TTCGCCAAGCAGCTGCCCGGCTTACCACCTCACCATCGCCGACCAGATCACCTCCTCAAGGCTGCCTGCCTG
GACATCCTGATCCTGCGGATCTGCACGCGGTACACGCCCGAGCAGGACACCATGACCTTCTCGGACGGGCTGACC
CTGAACCGGACCCAGATGCACAACGCTGGCTTCGGCCCCCTCACCGACCTGGTCTTTGCCTTCGCCAACCAGCTG
CTGCCCCCTGGAGATGGATGATGCGGAGACGGGGCTGCTCAGCGCCATCTGCCTCATCTGCGGAGACCGCCAGGAC
CTGGAGCAGCCGGACCGGGTGGACATGCTGCAGGAGCCGCTGCTGGAGGCGCTAAAGGTCTACGTGCGGAAGCGG
AGGCCCAGCCGCCCCACATGTTCCCAAGATGCTAATGAAGATTACTGACCTGCGAAGCATCAGCGCCAAGGGG
GCTGAGCGGGTGATCACGCTGAAGATGGAGATCCCGGGCTCCATGCCGCCTCTCATCCAGGAAATGTTGGAGAAC
TCAGAGGGCCTGGACACTCTGAGCGGACAGCCGGGGGGTGGGGGGCGGGACGGGGGTGGCCCTGGCCCCCCGCCA
GGCAGCTGTAGCCCCAGCCTCAGCCCCAGCTCCAACAGAAGCAGCCCGGCCACCCACTCCCCGTGACCGCCCACG
CCACATGGACACAGCCCTCGCCCTCCGCCCCGGCTTTTCTCTGCCTTTCTACCGACCATGTGACCCCGCACCAGC
CCTGCCCCACCTGCCCTCCCGGGCAGTACTGGGGACCTTCCCTGGGGGACGGGGAGGGAGGAGGCAGCGACTCC
TTGGACAGAGGCCTGGGCCCTCAGTGGACTGCCTGCTCCACAGCCTGGGCTGACGTGAGAGGCCGAGGCCAGGA
ACTGAGTGAGGCCCCCTGGTCTCTGGGTCTCAGGATGGGTCTGGGGGCCTCGTGTTCATCAAGACACCCCTCTGCC
CAGCTCACACATCTTCATCACCAGCAAACGCCAGGACTTGGCTCCCCATCCTCAGAACTCACAAGCCATTGCT
CCCCAGCTGGGGAACTCAACCTCCCCCTGCCTCGGTTGGTGACAGAGGGGGTGGGACAGGGGCGGGGGGTTC
CCCTGTACATACCTGCCATACCAACCCCAGGTATTAATTCTCGCTGGTTTTGTTTTTATTTTAAATTTTTTGT
TTGATTTTTTTAATAAGAATTTTCATTTTAAGCACATTTATACTGAAGGAATTTGTGCTGTGTATTGGGGGAGC
TGGATCCAGAGCTGGAGGGGGTGGGTCCGGGGGAGGGAGTGGCTCGGAAGGGGCCCCACTCTCCTTTCATGTCC
CTGTGCCCCCAGTTCTCCTCCTCAGCCTTTTCTCCTCAGTTTTCTCTTTAAACTGTGAAGTACTAACTTTCC
AAGGCCTGCCTTCCCTCCCTCCACTGGAGAAGCCGCCAGCCCTTTCTCCCTCTGCCTGACCACTGGGTGTGG
ACGGTGTGGGGCAGCCCTGAAAGGACAGGCTCCTGGCCTTGGCACTTGCCTGCACCCACCATGAGGCATGGAGCA
GGGCAGAGCAAGGGCCCCGGGACAGAGTTTTCCAGACCTGGCTCCTCGGCAGAGCTGCCTCCCGTCAGGGCCCA
CATCATCTAGGCTCCCCAGCCCCACTGTGAAGGGGCTGGCCAGGGGCGGAGCTGCCCCACCCCCGGCCTCAG
CCACCAGCACCCCATAGGGCCCCCAGACACCACACACATGCGCGTGCGCACACACACACACACACTGG
ACAGTAGATGGGCCGACACACACTTGGCCGAGTTCTCCATTTCCCTGGCCTGCCCCCACCCTCAACCTGTCC
CACCCCCGTGCCCTCCTTACCCCGCAGGACGGGCCTACAGGGGGGTCTCCCTCACCCCTGCACCCCAAGCTG
GGGGAGCTGGCTCTGCCCCGACCTCCTTACCAGGGGTGGGGGCCCTTCCCTGGAGCCCGTGGGTGCACCTGT
TACTGTTGGGCTTTCCACTGAGATCTACTGGATAAAGAATAAAGTTCTATTTATTCT

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FIGURE 4821

MASNSSCPTPGGGHLNGYPVPPYAFFFPMLGGLSPPGALTTLQHQLPVSGYSTPSPATIIETQSSSSEEIVPSP
PSPPLPRIYKPCFVCQDKSSGYHYGVSACEGCKGFFRRSIQKNMVYTCHRDKNCIINKVTRNRCQYCRLQKCFE
VGMSKESVRNDRNKKKKEVPKPECSESYTLTPEVGELIEKVRKAHQETFPALCQLGKYTTNNSSEQRVSLDIDLW
DKFSELSTKCIIKTVEFAKQLPGFTTLTIADQITLLKAACLDILILRICTRYTPEQDTMTFSDGLTLNRTQMUNA
GFGPLTDLVFANQLLPLEMDDAETGLLSAICLICGDRQDLEQPDRVDMLQEPLLEALKVYVRKRRPSRPHMFP
KMLMKITDLRSISAKGAERVITLKMEIPGSMPLIQEMLENSEGLDTLSGQPGGGGRDGGGLAPPPGSCSPSLSP
SSNRSSPATHSP

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FIGURE 4822

GCGCGGCGGGC**AT**GGCTCGGGTGGCGTGGGGGCTGCTGTGGTTGCTGCTGGGCAGCGCCGGGGCGCAGTACGAGA
AGTACAGCTTCCGGGGCTTCCCGCCGAGGACCTGATGCCGCTGGCCGCGGGCGTACGGGCACGCTCTGGAGCAGT
ACGAGGGAGAGAGCTGGCGCGAGAGCGCGCGCTACCTGGAGGCGGGCGCTGCGGGCTGCACCGGCTCCTGCGCGACA
GCGAGGCCTTCTGCCACGCCAACTGCAGCGGGCCCCGCGCCCCGCGGCCAAGCCCCGATCCCCACGGCGGGCCGCGCAG
ACGAGTGGGCCTGCGAGCTGCGGGCTCTTCGGCCGCGTCTTGAGCGAGCCGCTGCGCTGCGGGCGCTGCAAGCGGA
CGCTGCCCCGCTTCCAGGTGCCCTACCCGCCGCGGCAGCTGCTGCGTGACTTCCAGAGCCGCTGCCCTACCAGT
ACCTGCACTACGCGCTGTTCAAGGCTAACC GGCTGGAGAAGGCGGTGGCGGGCGGCCTACACCTTCTCCAGAGGA
ACCCGAAGCACGAGCTGACCGCCAAGTATCTCAACTACTATCAGGGGATGCTGGACGTCGCCGACGAGTCCCTCA
CGGACCTAGAGGCCCAGCCCTACGAGGCCGTGTTCTCCGGGCTGTGAAGCTCTACAACAGCGGGGATTTCCGCA
GCAGCACGGAGGACATGGAGCGGGCCTTGTCAGAGTACCTGGCAGTCTTTGCCCGGTGCCCTGGCCGGCTGTGAAG
GGGCCCATGAGCAGGTGGACTTCAAGGACTTCTACCCGGCCATAGCAGATCTCTTTGCAGAGTCCCTGCAGTGCA
AGGTGGACTGTGAGGCCAATTTGACCCCCAATGTGGGTGGCTACTTCGTGGACAAGTTTCGTGGCCACCATGTACC
ACTACCTGCAGTTTGCTACTATAAGTTGAATGATGTGCGCCAGGCTGCCCGCAGCGCCGCCAGCTACATGCTCT
TCGACCCCAAGGACAGCGTCATGCAGCAGAACCTGGTGTATTACCGGTTCCACCGGGCTCGCTGGGGCCTGGAAG
AGGAGGACTTCCAGCCCCGGGAGGAGGCCATGCTCTACCACAACCAGACCGCCGAGCTGCGGGAGCTGCTGGAGT
TCACCCACATGTACCTGCAGTCAGATGATGAGATGGAGCTGGAGGAGACAGAACCGCCCCCTGGAGCCTGAGGATG
CCCTATCTGACGCCGAGTTTGAGGGGGAGGGTGACTACGAGGAGGGCATGTATGCTGACTGGTGGCAGGAGCCGG
ATGCCAAGGGTGACGAGGCCGAGGCTGAGCCAGAGCCTGAACTCGCA**TG**AGAAGGGGACACCCACACCGCTCAA
GCTTGGAAGCCTGGTGCCGATGGCCCCACCCTCACCAGCCTGGGCAGCAGCAAGAACTATTTATTAAAACTTA
AGATGGGCCAGGTGCGGTGGCTCACACCTGTAATCCCAGCATTTTGGGAGGCCAAGGTGGGTGGATCACTTGAGG
CCAGGAGTTCAAGACCAGCCTGGCCAACATGATGAGACCTCCGTCTCTACTAAAATACATAAATTAGCCGGGTGT
GGTGGCAGGCGCCTGAAATCCCAGCTACTCAAGAGGCTGAGGCAGGAGAATCGCTTGAACCTGGGAGGCCAAGGT
TGCGGTGAACTGAGATTGCGCCACCGCACTCCAGCCTGGGCGACAGAGCGAGACTCCATCTTTAAAAAAAACAA
GACGGGCCGGCACGGTGGCTCACGCCTGTAATCCCAGCACTGAGAGGCCGATCACTTGAGGTCAGGAGTTCAAGA
CCTGCCTGGCCAACATGGTGAAACCCCATCTCTACTAAAAAATACAAAAATTAGCCAGGCATGGTGGCACACACC
TGTAATCGTAGCTGAGGCAGGAGAATCGCCTGAACCCAGGAGGCGGAGCTTGCAGTGAGCCGAGATCGTGCCACT
GCACTCCAGCCTGGGCGACAGAGTGAGACTCCATCTCAAAAAAATAAAAAAATAAGATGGACACAGCTGA
CTGGACCCCCATCCTGCCTCACCCATGGGTGCTGCACCCAGACCCATCCTGCCACTTCTATGTCTCTGGACCAC
AGGATGGTGGTGGCATTGCAGTTGGCAAGTGGGCTGATGGGGTCCGCCCTCCTCACTGCTGAGCTCCTCACCTG
GACAGTCTCCTGGACAAGGAGTTTCCAGCTGCTGGCTGGAGTCTCAGGCCAAATTGCAGAGGGTCTCCAGGGTC
CTGAAGAGCACTGGACTAAGAGTCTAGTGGTTCCAGGGCCCTGACCAGTAGGTGCTCAATAAATGTTTGTGTTG
AATGAAAAAAAAAAAAAAAAAAAA

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FIGURE 4823

MARVAWGLLWLLLSAGAQYKYSFRGFPPEDLMPLAAAYGHAEQYEGESWRESARYLEAALRLHRLLRDSEAF
CHANCSPAPAAKPDGGRADWACELRLFGRVLERAACLRCKRTLPAFQVPYPPRQLLRDFQSRLPYQYLHY
ALFKANRLEKAVAAAYTFLQRNPKHELTAKYLNYYQGMLDVADES LTDLEAQPYEAVFLRAVKLYNSGDFRSSTE
DMERALSEYLAVFARCLAGCEGAHEQVDFKDFYPAIADLFAESLQCKVDCEANLTPNVGGYFVDKFVATMYHYLQ
FAYYKLNDVRQAARSAASYMLFDPKDSVMQONLVYYRFHRRARWGLEEDFQPREEAMLYHNQTAE LRELLEFTHM
YLQSDDEMELEETEPPLEPEDALSDAEFEGEGDYEEGMYADWWQEPDAKGDEAEAEPEPELA

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FIGURE 4824

TCTTTCGCGGGCACTTCGAATTCTAGTCCCCCTCCAGGCAGGAGCCCCGGGCCGACGGAGAGGACTTAACGACACTA
TCGGACCCCTCTGGGAAAAGAGGGGAGACGTCGTGACCCAGGCCCCGCCCCACCTTGCCGCCTCGTGCCCGGCGCT
AAGACCCAGCGGGCGCGCCCGCCCGGGGCCCGCCCTGTCCCCCTCCGTCCGCGGGGCAGCCAGCTCAGCTC
CGGAGAGCCGGCGGCGCGGGCATGGCTCGGGTGGCGTGGGGGCTGCTGTGGTTGCTGCTGGGCAGCGCCGGG
GCGCAGTACGAGAAGTACAGCTTCCGGGGCTTCCGCCCCGAGGACCTGATGCCGCTGGCCGCGGCGTACGGGCAC
GCTCTGGAGCAGTACGAGGGAGAGAGCTGGCGCGAGAGCGCGCGCTACCTGGAGGCGGCGCTGCGGCTGCACCGG
CTCCTGCGCGACAGCGAGGCCTTCTGCCACGCCAACTGCAGCGGCCCCG

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FIGURE 4825

AGCTATGATCGCAACACCTTGGTGGCCATCGTGGTGGGTGTGGGGCGCCTCATCACTGGCATGGACCGAGGCCTC
ATGGGCATGTGTGTCAACGAGCGGCGAGCGCTCATTGTGCCTCCCCACCTGGGCTATGGGAGCATCGGCCTGGCG
GGGCTCATTCCACOGGATGCCACCTCTACTTCGATGTGTTCTGCTGGATGTGTGGAACAAGGAAGACACCGTG
CAGGTGAGCACATTGCTGCGCCCCGCCCCACTGCCCCCGCATGGTCCAGGACGGCGACTTTGTCCGCTACCACTAC
AATGGCACCTGTGCTGGACGGCACCTCCTTCGACACCAGCTACAGTAAGGGCGGCACCTTATGACACCTACGTCGGC
TCTGGTTGGCTGATCAAGGGCATGGACCAGGGGCTGCTGGGCATGTGTCTGGAGAGAGAAGGAAGATTATCATC
CCTCCATTCTGGCCTATGGCGAGAAAGGCTATGGGACAGTGATCCCCCACAGGCCTCGCTGGTCTTTACGTC
CTCCTGATTGACGTGCACAACCCGAAGGACGCTGTCCAGCTAGAGACGCTGGAGCTCCCCCGGGCTGTGTCCGC
AGAGCCGGGGCCGGGGACTTCATGCGCTACCACTACAATGGCTCCTTGATGGACGGCACCTCTTCGATTCCAGC
TACTCCCCGAACCAACACCTACAATACCTATATCGGGCAGGGTTACATCATCCCCGGGATGGACCAGGGGCTGCAG
GGTGCCTGCATGGGGGAACGCCGGAGAATTACCATCCCCCGCACCTCGCCTATGGGGAGAATGGAACCTGGAGAC
AAGATCCCTGGCTCTGCCGTGCTAATCTTCAACGTCCATGTCATTGACTTCCACAACCTGCGGATGTGGTGGAA
ATCAGGACACTGTCCCGCCATCTGAGACCTGCAATGAGACCACCAAGCTTGGGGACTTTGTTTCGATACCATTTAC
AACTGTTCTTTGCTGGACGGCACCCAGCTGTTACCTCGCATGACTACGGGGCCCCCAGGAGGCGACTCTCGGG
GCCAACAAGGTGATCGAAGGCCTGGACACGGGCCTGCAGGGCATGTGTGTGGGAGAGAGGGCGGCAGCTCATCGTG
CCCCCGCACCTGGCCACGGGGAGAGTGGAGCCCGGGAGTCCAGGCAGTGCTGTGCTGCTGTTTGGAGGTGGAG
CTGGTGTCCCGGGAGGATGGGCTGCCCACAGGCTACCTGTTTGTGTGGCACAAGGACCCTCCTGCCAACCTGTTT
GAAGACATGGACCTCAACAAGGATGGCGAGGTCCCTCCGGAGGAGTTCTCCACCTTCATCAAGGCTCAAGTGAGT
GAGGGCAAAGGACGCCTCATGCCTGGGCAGGACCCTGAGAAAACCATAGGAGACATGTTCCAGAACCAGGACCGC
AACCAGGACGGCAAGATCACAGTCGACGAGCTCAAGCTGAAGTCAGATGAGGACGAGGAGCGGGTCCACGAGGAG
CTCTGAGGGGCAGGGAGCCTGGCCAGGCCTGAGACACAGAGGCCCACTGCGAGGGGGACAGTGGCGGTGGGACTG
ACCTGCTGACAGTCAACCTCCCTCTGCTGGGATGAGGTCCAGGAGCCAATAAAACAATGGCAGAGGAGACATCT
CTGGTGTTCACACCACCTAGATGAAAATCCACAGCACAGACCTCTACCGTGTTTCTCTTCCATCCCTAAACCAC
TTCCTTAAAAATGTTTGGATTTGCAAAGCCAATTTGGGGCCTGTGGAGCCTGGGGTTGGATAGGGCCATGGCTGGT
CCCCACCATACCTCCCCCTCCACATCACTGACACAGCTGAGCTTGTTATCCATCTCCCCAACTTTCTCTTTCTT
TGTACTTCTTGTATCCCCACTCCCAGCCCCCTTTCTCTATGTGACAGCTCCCTAGGACCCCTCTGCCTTCCTC
CCCAATCCTGACTGGCTCCTAGGGAAGGGGAAGGCTCCTGGAGGGCAGCCCTACCTCTCCCATGCCCTTTGCCCT
CCTCCCTCGCCTCCAGTGGAGGCTGAGCTGACCCTGGGCTGCTGGAGGCCAGACTGGGCTGTAGTTAGCTTTTCA
TCCCTAAAGAAGGCTCCTTTCCCTAAGGAACCATAGAAGAGAGGAAGAAAACAAGGGCATGTGTGAGGGAAGCT
GCTTGGGTGGGTGTTAGGGCTATGAAATCTTGGATTTGGGGCTGAGGGGTGGGAGGGAGGGCAGAGCTCTGCACA
CTCAAAGGCTAAACTGGTGTACAGTCCTTTTTCTTTGTTCCAAATAAAAGATTAAACC

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FIGURE 4826

GGGATGGCAGAGGAGGTGAGGAGGGAGGAAGCGTCCGGAGTGGGGCGGGCCGGACTCCGACCCCCGGGGCGCTT
CGAGCCCCCAGCTGGTCACCGAGGCACCGCCGCTTCACCCAGGCCAGTAGCCGCCCCCTCGCGCACCCCGGGCCC
CGCCTCACACGCGCGCCCCGAGCGAGCCCCGGGCTCCCCCTCGGGCCCAGCGTGGCGCAGGGGTCA GTGGTTCTCTC
GGGTCTCGGGACAGGTGAGCACCCCTGATGAAGGCCACGGTCCTGATGCGGCAGCCTGGGCGGGTGCAGGAGATCG
TGGGCGCCCTCCGCAAGGGCGGCGGAGACCGGTTACAGGTGATTTCTGATTTTGACATGACCTTGAGCAGGTTTG
CATATAATGGAAAGCGATGCCCTTCTTCTTACAATATTCTGGATAATAGCAAGATCATCAGTGAGGAGTGTCCGA
AAGAGCTCACAGCGCTCCTTCACCACTATTACCCAATTGAGATCGACCCACACCGGACCGTCAAGGAGAAGCTAC
CTCATATGGTGGAAATGGTGGACCAAAGCACACAATCTCCTATGTCAGCAGAAGATT CAGAAGTTTCAGATAGCCC
AGGTGGTTAGAGAGTCCAATGCAATGCTCAGGGAGGGATATAAGACCTTCTTCAACACACTCTACCATAACAACA
TTCCCCTTTTTCATCTTTTTCTGCGGGCATTGGTGATATCCTGGAAGAAATTATCCGACAGATGAAAGTGTTCACC
CCAACATCCACATCGTGTCTAACTACATGGATTTTAATGAAGATGGTTTTCTCCAGGGATTTAAGGGCCAGCTCA
TACACACATAACAAGAACAGCTCTGCGTGTGAGAACTCTGGTTACTTCCAGCAACTTGAGGGCAAAACCAATG
TCATCCTGCTGGGAGACTCTATCGGGGACCTCACCATGGCCGATGGGGTTCCTGGTGTGCAGAACATTCTCAAAA
TTGGCTTCCTGAATGACAAGGTGGAGGAGCGGCGGGAGCGCTACATGGACTCCTATGACATCGTGTCTGGAGAAGG
ACGAGACTCTGGATGTGGTCAACGGGCTACTGCAGCACATCCTGTGCCAGGGGGTCCAGCTGGAGATGCAAGGCC
CCTGAAGGCGCAGGCTCCAGCCCGGCCTGCAGGCCGTGGTGAGGAGGGGCGCCTCCCCAGAGTCTGCTCCCCCGT
GAACACAGAGCAGAGGCCAGGGTGGCCAGCAGTGGCTGGGTCTTCCGCGCCCCTCCGTCTCTCTTCCCTGAGC
ACCTTCATCACCAGAGGCTTGAAGGAACCCCGCCATGTGGCAGGGCACAGGCAC TGTTCCTGGTGAACCTTGGAC
CACAGCATGTCAGTGCTCTAGGGATTGTCTACTCCAGGGATTTTCTTCAAAATTTTAAACATGGGAAGTTCAAA
CAAATATAATGTGTGAAACAG

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FIGURE 4827A

CCGGATTTTTCGGGGGTTTCGTTCGGGCCTGTGGAAGAAGCGCCGCGCACGGACTTCGGCAGAGGTAGAGCAGGTCTC
TCTGCAGCCATGTTCGGCCAAGGCAATTTTCAGAGCAGACGGGCAAAGAACTCCTTTACAAAGTTTCATCTGTACCACC
TCAGCCATCCAGAATCGGTTCAAGTATGCTCGGGTCACCTCTGACACAGACTGGGCCCGCTTGCTGCAGGACCAC
CCCTGGCTGCTCAGCCAGAACTTGGTAGTCAAGCCAGACCAGCTGATCAAACGTCGTGGAAAACCTTGGTCTCGTT
GGGGTCAACCTCACTCTGGATGGGGTCAAGTCCTGGCTGAAGCCACGGCTGGGACAGGAAGCCACAGTTGGCAAG
GCCACAGGCTTCCTCAAGAAGTTTCTGATCGAGCCCTTCGTCCCCACAGTCAGGCTGAGGAGTTCTATGTCCTGC
ATCTATGCCACCCGAGAAGGGGACTACGTCTGTTCCACCACGAGGGGGGTGTGGACGTGGGTGATGTGGACGCC
AAGGCCCAGAAGCTGCTTGTGGCGTGGATGAGAACTGAATCCTGAGGACATCAAAAAACACCTGTTGGTCCAC
GCCCCGTAAGACAAGAAAGAAATTCTGGCCAGTTTTATCTCCGGCCTCTTCAATTTCTACGAGGACTTGTACTTC
ACCTACCTCGAGATCAATCCCCTTGTAGTGACCAAAGATGGAGTCTATGTCCTTGACTTGGCGGCCAAGGTGGAC
GCCACTGCCGACTACATCTGCAAAGTGAAGTGGGGTGACATCGAGTTCCCTCCCCCTTCGGGCGGGAGGCATAT
CCAGAGGAAGCCTACATTGCAGACCTCGATGCCAAAAGTGGGGCAAGCCTGAAGCTGACCTTGCTGAACCCCAA
GGGAGGATCTGGACCATGGTGGCCGGGGGTGGCGCCTCTGTCTGTACAGCGATACCATCTGTGATCTAGGGGGT
GTCAACGAGCTGGCAAACCTATGGGGAGTACTCAGGCGCCCCAGCGAGCAGCAGACCTATGACTATGCCAAGACT
ATCCTCTCCCTCATGACCCGAGAGAAGCACCCAGATGGCAAGATCCTCATCATTGGAGGCAGCATCGCAAACCTC
ACCAACGTGGCTGCCACGTTCAAGGGCATCGTGAGAGCAATTCGAGATTACCAGGGCCCCCTGAAGGAGCACGAA
GTCACAATCTTTGTCCGAAGAGGTGGCCCCAACTATCAGGAGGGCTTACGGGTGATGGGAGAAGTCGGGAAGACC
ACTGGGATCCCCATCCATGTCTTTGGCACAGAGACTCACATGACGGCCATTGTGGGCATGGCCCTGGGCCACCGG
CCCATCCCCAACCCAGCCACCCACAGCGGCCCACTGCAAACCTTCTCCTCAACGCCAGCGGGAGCACATCGACG
CCAGCCCCCAGCAGGACAGCATCTTTTTCTGAGTCCAGGGCCGATGAGGTGGCGCCTGCAAAGAAGGCCAAGCCT
GCCATGCCACAAGATTAGTCCCAAGTCCAAGATCCCTGCAAGGAAAGAGCACCACCTCTTCAGCCGCCACACC
AAGGCCATTGTGTGGGGCATGCAGACCCGGGCGCTGCAAGGCATGCTGGACTTTGACTATGTCTGCTCCCGAGAC
GAGCCCTCAGTGGCTGCCATGGTCTACCCCTTCACTGGGGACCACAAGCAGAAGTTTTACTGGGGGCACAAAGAG
ATCCTGATCCCTGTCTTCAAGAACATGGCTGATGCCATGAGGAAGCATCCGGAGGTAGATGTGCTCATCAACTTT
GCCTCTCTCCGCTCTGCCTATGACAGCACCATGGAGACCATGAACTATGCCCAGATCCGGACCATCGCCATCATA
GCTGAAGGCATCCCTGAGGCCCTCACGAGAAAGCTGATCAAGAAGGCGGACCAGAAGGGAGTGACCATCATCGGA
CCTGCCACTGTTGGAGGCATCAAGCCTGGGTGCTTTAAGATTGGCAACACAGGTGGGATGCTGGACAACATCCTG
GCCTCCAAACTGTACCGCCAGGCAGCGTGGCCTATGTCTCACGTTCCGGAGGCATGTCCAACGAGCTCAACAAT
ATCATCTCTCGGACCACGGATGGCGTCTATGAGGGCGTGGCCATTGGTGGGGACAGGTACCCGGGCTCCACATTC
ATGGATCATGTGTACGCTATCAGGACACTCCAGGAGTCAAATGATTGTGGTTCTTGGAGAGATTGGGGGCACT
GAGGAATATAAGATTTGCCGGGGCATCAAGGAGGGCGCCTCACTAAGCCCATCGTCTGCTGGTGCATCGGGACG
TGTGCCACCATGTTCTCTCTGAGGTCCAGTTTGCCATGCTGGAGCTTGTGCCAACCAGGCTTCTGAAACTGCA
GTAGCCAAGAACCAGGCTTTGAAGGAAGCAGGAGTGTGTTTGTGCCCCGAGCTTTGATGAGCTTGGAGAGATCATC
CAGTCTGTATACGAAGATCTCGTGGCCAATGGAGTCATTGTACCTGCCAGGAGGTGCCGCCCCAACCGTGCCC
ATGGACTACTCCTGGGCCAGGGAGCTTGGTTTGATCCGCAAACCTGCCTCGTTTCATGACCAGCATCTGCGATGAG
CGAGGACAGGAGCTCATCTACGCGGGCATGCCATCACTGAGGTCTTCAAGGAAGAGATGGGCATTGGCGGGGTC
CTCGCCTCCTCTGTTTCCAGAAAAGGTTGCCTAAGTACTCTTGCCAGTTTCATTGAGATGTGTCTGATGGTGACA
GCTGATCACGGGCCAGCCGTCTCTGGAGCCCACAACACCATCATTGTGCGCGAGCTGGGAAAGACCTGGTCTCC
AGCCTACCTCGGGGCTGCTCACCATCGGGGATCGGTTTGGGGGTGCCTTGGATGCAGCAGCCAAGATGTTTCAGT
AAAGCCTTTGACAGTGGCATTATCCCCATGGAGTTTGTGAACAAGATGAAGAAGGAAGGGAAGCTGATCATGGGC
ATTGGTCACCGAGTGAAGTCGATAAACAACCCAGACATGCGAGTGCAGATCCTCAAAGATTACGTACGGCAGCAC
TTCCCTGCCACTCCTCTGCTCGATTATGCACGTGAAGTAGAGAAGATTACCACCTCGAAGAAGCCAAATCTTATC
CTGAATGTAGATGGTCTCATCGGAGTCGCATTTGTAGACATGCTTAGAAAAGTGTGGGTCTTTACTCGGGAGGAA
GCTGATGAATATATTGACATTGGAGCCCTCAATGGCATCTTTGTGCTGGGAAGGAGTATGGGGTTTATTGGACAC
TATCTTGATCAGAAGAGGCTGAAGCAGGGGCTGTATCGTCATCCGTGGGATGATATTTTCATATGTTCTTCCGGAA
CACATGAGCATGTAACAGAGCCAGGAACCCCTACTGCAGTAAACTGAAGACAAGATCTCTTCCCCAACAAAAAGT
GTACAGACAGCTGGCAGTGGAGCCTGCTTTATTTAGCAGGGGCTGGAATGTAAACAGCCACTGGGGTACAGGCA
CCGAAGACCAACATCCACAGGCTAACACCCCTTCAGTCCACACAAAGAAGCTTCATATTTTTTTTATAAGCATAG

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FIGURE 4827B

AAATAAAAACCAAGCCAATATTTGTGACTTTGCTCTGCTACCTGCTGTATTTATTATATGGAAGCATCTAAGTAC
TGTCAGGATGGGGTCTTCCTCATTGTAGGGCGTTAGGATGTTGCTTTCTTTTCCATTAGTTAAACATTTTTTTC
TCCTTTGGAGGAAGGGAATGAAACATTTATGGCCTCAAGATACTATACATTTAAAGCACCCCAATGTCTCTCTTT
TTTTTTTTTTACTTCCCTTTCTTCTTCCTTATATAACATGAAGAACATTGTATTAATCTGATTTTTAAAGATCTT
TTTGTATGTTACGTGTTAAGGGCTTGTTTGGTATCCCACTGAAATGTTCTGTGTTGCAGACCAGAGTCTGTTTAT
GTCAGGGGGATGGGGCCATTGCATCCTTAGCCATTGTCACAAAATATGTGGAGTAGTAACCTAATATGTAAAGTT
GTAACATACATACATTTAAAATGGAAATGCAGAAAGCTGTGAAATGTCCTTGTGTCTTATGTTCTCTGTATTTATG
CAGCTGATTTGTCTGTCTGTAAGTGTGGGTCCAAGGACTCCTAACTACTTTGCATCTGTAATCCACAAAG
ATTCTGGGCAGCTGCCACCTCAGTCTCTTCTCTGTATTATCATAGTCTGGTTTAAATAAACTATATAGTAACA

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FIGURE 4828

MSAKAISEQTGKELLYKFICTTSAIQNRFKYARVTPD TDWARLLQDHPWLLSQNLVVKPDQLIKRRGKLGLVGVN
LTLDGVKSWLKPRLGQEATVGKATGFLKNFLIEPFPVPHSQAEEFYVCIYATREGDYVLFHHEGGVDVGDVDAKAQ
KLLVGVDEKLNPE DIKKHLLVHAPEDKKEILASFISGLFNFYEDLYFTYLEINPLVVTKDGVYVLDLAAKVDATA
DYICKVKWGDI EFPPPF GREAYPEEAYIADLDAKSGASLKLTLNPKGRIWTMVAGGGASVVYSDTICDLGGVNE
LANYGEYSGAPSEQQTYDYAKTILSLMTREKHPDGKILII GGSIANFTNVAATFKGIVRAIRDYQGPLKEHEVTI
FVRRGGPNYQEGLRVMGEVGKTTGIP IHVFGTETHMTAIVGMALGHRP IPNQPTAAHTANFLLNASGSTSTPAP
SRTASFSESRADEVAPAKKAKPAMPQDSVPSRSLQGKSTTLFSRHTKAIWGMQTRAVQGM LDFDYVCSRDEPS
VAAMVYPFTGDHKQKFYWGHKEILIPVFKNMADAMRKHPEVDVLINFASLSAYDSTMETMNYAQIRTIAIIAEG
IPEALTRKLIKADQKGVTIIGPATVGGIKPGCFKIGNTGGMLDNILASKLYRPGSVAYVSRSGGMSNELNNIIS
RTTDGVYEGVAIGGDRYPGSTFMDHVLRYQDTPGVKMI VVLGEIGGTEEYKICRGIKEGRLSTPVVCWCIGTCAT
MFSSEVQFGHAGACANQASETAVAKNQALKEAGVFVPRSFDELGEIIQSVYEDLVANGVIVPAQEVPPPTVPM DY
SWARELG LIRKPASFMTSICDERGQELIYAGMPITEVFKEEMGIGGVLG LLWFQKRLPKYSCQFIEMCLMVTADH
GPAVSGAHNTIICARAGKDLVSSLTSGLLTIGDRFXGCLGCSSQDVQ

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FIGURE 4829

GGCTGAGGGGAGGGCCGTTGGCCGGGGCCTGCGGTACGCCGCTTCAGTGAGGGACGCCACTGCGGGCCACCCGGCT
 TGCTGCCTTCCTGGGCGCCACTCCCCAGGCGACCCGACGCGACGCGCCAGCAGCGCAGCACCATTCTCTCGG
 GCTCTTGGGCGCTGCTCTGAGCAGCGTCACCCTTTACACCAGAAAGCTGGCGGGCACTATGGGGAAAAAACAAAA
 CAAGAAGAAAGTGAGGAGGTGCTAGAAGAGGAGGAAGAGGAATATGTGGTGGAAAAAGTTCTCGACCGTCGAGT
 GGTAAAGGGCAAAGTGAGGTACCTCCTAAAGTGGAAGGGATTCTCAGATGAGGACAACACATGGGAGCCAGAAGA
 GAACCTGGATTGCCCCGACCTCATTGCTGAGTTTCTGCAGTCACAGAAAACAGCACATGAGACAGATAAATCAGA
 GGGAGGCAAGCGCAAAGCTGATTCTGATTCTGAAGATAAGGGAGAGGAGAGCAAACCAAAGAAGAAGAAAGAAGA
 GTCAGAAAAGCCACGAGGCTTTGCTCGAGGTTTGGAGCCGGAGCGGATTATTGGAGCTACAGACTCCAGTGGAGA
 GCTCATGTTCTGATGAAATGGAAAACTCTGATGAGGCTGACCTGGTCCCTGCCAAGGAAGCCAATGTCAAGTG
 CCCACAGGTTGTATATCCTTCTATGAGGAAAGGCTGACGTGGCATTCTACCCCTCGGAGGATGATGACAAAAA
 AGATGACAAGAATAACGCTCCTGAGTACCAGCCCCTGTACATCTGACTGTGGGTTTCAAGTGGGAAGGGAAGG
 AGTTCTACTTGTCTTGACACCATAGAGGTGGCTTGAGAAGATGTCCTTTGAAGAGCCAGTATAGTTTCTGTGCCC
 TGCAGCAGCCCCAAGTGCTTTAAAGCCGTTTCAAGCTGTATAGTTTGCACACCCATCCAGTGGAGGGGAAAGGGG
 ATAAGTGTTCGAAGGCAACCTTTTCTGCACCTTGTGCGAAAAGCAAAGGGCCTTCTATGAAGACAAAACCTTGC
 AGAATTGGGTGTGTGGGAGAGCAAAAAATACTGTAGATCTTCAAAGAGCATCTCCACAACCCACAGCCTTCTTC
 CCAATAGTGTTAACTCTGCATTTTTTACAGCGTAGCATGTGTGTAGTTTTTGGCTATTACTGGTGTATTATTGGG
 GGAGGGAGGGATGGGAGGGGAGAAAGGGAGATGGGTAGCATCATTTTGATTAAACATTTGGGGCCTGATAGGGGA
 AATGGTGAAGCAATGGAAAAGAACAGACAATAATGATTGTCTTCTATGTCCAGAATATTTACCTTTAAAAAAA
 TGTCATTGGCACCATAAATAAGGACTGTGAGAGACTGTTTAAAAGCTGTGAAAGTCTGAAACCTATAAGCCAAGG
 TGTTCCCTGCCTAAACTTATTGCTGTTCCCAAAAGGACTAAGCCTGTTTATAAGTTACCAAAGTTGCCATTTTG
 GAGATGGAAATTGACGAGGAGGGAAGGTCTTTTATTGGAGAGTATACAGTACAAGCAGATCATTCTGCCTTAGAG
 GTGCTAATTTCCGAAATTAGAAGACCCTTTCTTTTCCAGTAACGAAGTTATAAATATCAGCTTGTTTCATCCAAGC
 CACTGGCTGAGGTGTTAGGAAGAGGAAGAGGGTGGTAGAGGAGGTAAGACAGTAGGGAAAGACAAGGGCCCATGC
 TCTTAGTGGGGAACCTCTTGAGCCGTTTACTTTGAGCTTTGAACACTGAAACCATTTGTTGGCAGGGTTTCAGTC
 ACTGACAGCACAAAGTTTCACTGAATTGATCCAAGAGTTTAGTGATTTCAAAAGCCTTGGTCTCAGGAGAAGATTA
 AACTTTTCATATTGGGCAGTGGTTCACTTTAAACACACACATACACACACAAAACAATTTTTTAAGAAATCCTAA
 TAAGTAACATACCCAAAATGCTCTGTCTTGAGTCATGAGAACCATCAGTTCTTGATATTGTCTAGACTTGCACT
 AGAGCTACGTTGTAAAATCTTTTAGGCATGTGTAGATTCTGTGTAAACTTTGTTTAAATGTAAACTTCATAC
 TACATTGTCAGTTTTTGTCTTAATAAACTATAGATTTAT

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FIGURE 4830

CTGAAGCGGAAGTGGAGGAAAGATGGAGGACCATCAGCACGTGCCCATCGACATCCAGACCAGCAAGCTGCTCGA
TTGGCTGGTGGACAGAAGGCACTGCAGCCTGAAATGGCAGAGTCTGGTGCTGACGATCCGCGAGAAGATCAATGC
TGCCATCCAGGACATGCCAGAGAGCGAAGAGATCGCCAGCTGCTGTCTGGGTCTACATTCACTACTTTCACTG
CCTAAGAATCCTGGACCTTCTCAAAGGCACAGAGGCCTCCACGAAGAATATTTTTGGCCGATACTCTTCACAGCG
GATGAAGGATTGGCAGGAGATTATAGCTCTGTATGAGAAGGACAACACCTACTTAGGTAAAGTGGCCCGGCCTGG
GAGCCCTGGTATCCATGGGGAAGCCCACTCTCAGAGTTCTGAGATACCAGGCTTATAGGAGGCACAGTCTGTGAG
TGGGAAGAGACTGGAGTGTAGATGTTGCCCATTTGTAGGTGGTAAAATCAATTGTTTTGATGGAATTGATTTTC
CCTGAGTGGAGTGTCTGGGGGAAGGAGGAGGTCCAGGCCGGTAGTGGCCATTCGCCGTGCCTCAGCGAGCAGGTGT
GTGTGGGTCTCCACCACTCACCTCTTGTTAGCGGGAGTGTGCTGCCCCACCCCCACCCCCGCACCCCCATTC
TACACAAGGCAGAAGAGGCACGGGTTTTCTGGGAGCGAATATCAAGTGCCTGAGAGCAACTACAGGACTAACTG
TGTTTTGGGTGGGTGTAGTATAAATAATAATAATGGCTAATATTTCTGAGCATCTACTAAATGCAAGGAATTGT
GCTTGGTGTGTCTGTGATTCTCTCTTGATCTTCATGATAAATGTTATTGTCGCTGTTTTACCGATGAGGGTT
GGATTAGAGGGGTAAACAACCTGTCTTAGGCTCCACAGCTGGGAACAAGTGGGGCTGGGAAGCTGACTTCGTGC
TCTTACCACCACAAAGGATGTGTGTGCATCCTGGGGCATGCCTGCCTCATGTGGGGGTGTCTGGGCTGAATTT
CCTGGGCACCTCTCAGTGGAACTCTCTAGCCTCCTGGTTCGGAATGTCAACTATGAGATCCCTCACTGAAGAAG
CAGATTGCCAAGTGCCAGCAGCTGCAGCAAGAATACAGCCGCAAGGAGGAGGAGTGCCAGGCAGGGGCTGCCGAG
ATGCGGGAGCAGTTCTACCACTCCTGCAAGCAGTATGGCATCACGGGCGAAAATGTCCGAGGAGAACTGCTGGCC
CTGGTGAAGGACCTGCCGAGTCAGCTGGCTGAGATTGGGGCAGCGGCTCAGCAGTCCCTGGGGGAAGCCATTGAC
GTGTACCAGGCGTCTGTGGGGTTTGTGTGTGAGAGCCCCACAGAGCAGGTGTTGCCAATGCTGCGGTTCTGTGCAG
AAGCGGGGAAACTCAACGGTGTACGAGTGGAGGACAGGGACAGAGCCCTCTGTGGTGGAACGACCCACCTCGAG
GAGCTTCTGAGCAGGTGGCAGAAGATGCGATTGACTGGGGCGACTTTGGGGTAGAGGCAGTGTCTGAGGGGACT
GACTCTGGCATCTCTGCCGAGGCTGCTGGAATCGACTGGGGCATCTTCCCGGAATCAGATTCAAAGGATCCTGGA
GGTGATGGGATAGACTGGGGAGACGATGCTGTTGCTTTGCAGATCACAGTGCTGGAAGCAGGAACCCAGGCTCCA
GAAGGTGTTGCCAGGGGCCCAGATGCCCTGACACTGCTTGAATACACTGAGACCCGGAATCAGTTCTTGATGAG
CTCATGGAGCTTGAGATCTTCTTAGCCCAGAGAGCAGTGGAGTTGAGTGAGGAGGCAGATGTCTGTCTGTGAGC
CAGTTCCAGCTGGCTCCAGCCATCCTGCAGGGCCAGACCAAAGAGAAGATGGTTACCATGGTGTGAGTGTGAGC
GATCTGATTGGCAAGCTTACCAGTCTTCAGCTGCAACACCTGTTTATGATCCTGGCCTCACCAGGTATGTGGAC
CGAGTGACTGAATTCTCCAGCAAAAGCTGAAGCAGTCCCAGCTGCTGGCTTTGAAGAAAGAGCTGATGGTGCAG
AAGCAGCAGGAGGCACCTTGAGGAGCAGGCGGCTCTGGAGCCTAAGCTGGACCTGCTACTGGAGAAGACCAAGGAG
CTGCAGAAGCTGATTGAAGCTGACATCTCCAAGAGGTACAGCGGGCGCCCTGTGAACCTGATGGGAACCTCTCTG
TGACACCCCTCCGTGTTCTTGCTGCCATCTTCTCCGCTTTTGGGATGAAGATGATAGCCAGGGCTGTTGTTTTG
GGGCCTTTCAAGGCAAAAGACCAGGCTGACTGGAAGATGGAAAGCCACAGGAAGGAAGCGGCACCTGATGGTGAT
CTTGGCACTCTCCATGTTCTCTACAAGAAGCTGTGGTGATTGGCCCTGTGGTCTACCAGGCGAAAACACAGATT
CTCCTTCTAGTTAGTATAGCGGACTTAATAAAAGAGGAAAAACAAAAAAAAAAAAAAAAAAAAA

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FIGURE 4831

MCVHPGACLP HVGVSWAEFF GHFSVELSSLLVRNVN YEIPSLKKQIAKCQQLQQEYSRKEEECQAGAAEMREQFY
HSC KQYGITGENVRGELLALVKDLPSQLAEI GAAAQQLGEAIDVYQASVGFVCESPT EQVLPMLRFVQKRGNST
VYEWRTGTEPSVVERPHLEELPEQVAEDAIDWGDFGVEAVSEGTD SGISAEAAGIDWGIFPESDSKDPGGDGIDW
GDDAVALQITVLEAGTQAP EGVARGPDALT LLEYTETR NQFLDELMELEIFLAQRAVELSEEADVLSVSQFQLAP
AILQGQTKEKMVTMVSVLEDLIGKLTSLQLQHLMILASPRYVDRVTEFLQQKLKQS QLLALKKELMVQKQQEAL
EEQAAL EPKLDL LLEKTKELQKLI EADISK RYSGRPVNL MGTSL

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FIGURE 4832

GAAGAGGGTTCGGGTATCTGGGCATGCGCAGGGCCGAGGACTCTTGGTGGGGTAGCGAGGGGGACGGTCCCACGA
CTGCTCCGAAGGGCCGGGACTCCAGTGGGGGCGGGACCCCCGGAGTGCCCGCCTGCGGACTCCCAAGCCTGGAG
CCTGGGGAGAGGGTGGGCACCTCCGTTCCCGCACACCCGTCCATGGTGTGTGCGCCGAGCGTCCAGGAGCCACGG
CGGTGTCTTCCTTGCGCGTCTTTTACACGTGTGGGGGTAGGCTGCTCCTCGGGGCTGAGCCGTGGCCAGGGTTAT
GGAGAGGGCCCGCCTCTCCCCAGATGGCGTCGTCGAGCCCTGACTCCCCATGTTCTGCGACTGCTTTGTCTCCGT
GCCCCCGGCCTCAGCCATCCCGGCTGTGATCTTTGCCAAGAACTCGGACCGACCCCGGGACGAGGTGCAGGAGGT
GGTGTGTTGTCCCCGCAGGCACTCACACTCCTGGGAGCCGGCTCCAGTGCACCTACATTGAAGTGGAAACAGGTGTC
GAAGACGCACGCTGTGATTCTGAGCCGTCTTCTTGGCTATGGGGGGCTGAGATGGGCGCCAACGAGCATGGTGT
CTGCATTGGCAACGAGGCTGTGTGGACGAAGGAGCCAGTTGGGGAGGGGGAAGCCCTGCTGGGCATGGACCTACT
CAGGCTGGCTTTTGAACGGAGCAGCTCTGCCCAGGAGGCCTTGATGTGATCACAGGGTTACTGGAGCACTATGG
GCAGGGGGGCAACTGCCTGGAGGATGCTGCGCCATTCTCCTACCATAGCACCTTCCTGCTGGCTGACCGCACTGA
GGCGTGGGTGCTGGAGACAGCTGGGAGGCTCTGGGCTGCACAGAGGATCCAGGAGGGGGCCCGCAACATCTCCAA
CCAGCTGAGCATTGGCACGGACATCTCGGCCCAACACCCGGAGCTGCGGACTCATGCCAGGCCAAGGGCTGGTG
GGATGGGCAGGGTGCCTTTGACTTTGCTCAGATCTTCTCCCTGACCCAGCAGCCTGTGCGCATGGAGGCTGCCAA
GGCCCCGCTTCCAGGCAGGGCGGGAGCTGCTGCGGCAACGGCAAGGGGGCATCACGGCAGAGGTGATGATGGGCAT
CCTCAGAGACAAGGAGAGTGGTATCTGTATGGACTCGGGAGGCTTTCGCACCACGGCCAGCATGGTGTCTGTCTT
GCCCCAGGATCCCACGCAGCCCTGCGTGCACCTTTCTTACCGCCACGCCAGACCCATCCAGGTCTGTGTTCAAACC
TTTCATCTTCGGGATGGGGGTGGCCAGGCCCCCCAGGTGCTGTCCCCCACTTTTGGAGCACAAGACCCTGTTTCG
GACCCTGCCCCGATTCCAGACTCAGGTAGATCGTCGGCATAACCCTCTACCGTGGACACCAGGCAGCCCTGGGGCT
GATGGAGAGAGATCAGGATCGGGGGCAGCAGCTCCAGCAGAAACAGCAGGATCTGGAGCAGGAAGCCCTCGAGGC
CACACAGGGGCTGCTGGCCGGCGAGTGGGCCCCACCCCTCTGGGAGCTGGGCAGCCTCTTCCAGGCCTTCGTGAA
GAGGGAGAGCCAGGCTTATGCGTAAGCTTCATAGCTTCTGCTGGCCTGGGGTGGACCCAGGACCCCTGGGGCCTG
GGTGCCCTGAGTGGTGGTAAAGTGGAGCAATCCCTTCACGCTCCTTGGCCATGTTCTGAGCGGCCAGCTTGGCCT
TTGCCTTAATAAATGTGCTTTATTTTC

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FIGURE 4833

MASSSPDSPCSCDCFVSVPPASAIPAVIFAKNSDRPRDEVQEVVFPAGTHTPGSRLQCTYIEVEQVSKTHAVIL
SRPSWLWGAEMGANEHGVCIGNEAVWTKEPVGEGEALLGMDLLRLALERSSSAQEALHVITGLLEHYGGNCLE
DAAPFSYHSTFLLADRTEAWVLETAGRLWAAQRIQEGARNISNQLSIGTDISAQHPELRTHAQAKGWWDGQAFD
FAQIFSLTQQPVRMEAAKARFQAGRELLRQRQGGITAEVMMGILRDKESGICMDSGGFRTTASMSVLPQDPTQP
CVHFLTATPDPSRSVFKPFI FG MGVAQAPQVLSPTFGAQDPVRTLPRFQTQVDRRHTLYRGHQAALGLMERDQDR
GQQLQQKQQDLEQEGLEATQGLLAGEWAPPLWELGSLFQAFVKRESQAYA

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FIGURE 4834

TCTCCCTCCGCTCCCGAGCACCAGCGCGCTCTGAGCTGCCCCAGGGTCCCTCCCCCGCCGCCAGCAGCCATT
TGGAGGGAGGAAGTAAGGGAAGAGAGAGGAAGGGGAGCCGGACCGACTACCCAGACAGAGCCGGTGAATGGGT
TGTGGTGACCCCCGCCCCCACCACCCCTCCCTTCCACCCGACCCCAACCCCATCCCCAGTTTCGAGCCGCC
GCCGAAAGGCCGGGCGCTCGTCTTAGGAGGAGTCGCCGCCGCCGCCACCTCCGCCATGAGCTGATCACCATT
TCGAGAAGACCGTGCTCCTCCGATCGGCTGGAGCTGGAAGCGGCGCAGAAGTTCTGGAGCGTGC GGCGTGGAGA
ACCTGCCCACTTTCTTGTGGAAGTGTCCAGAGTGTGGCAAATCCAGGAAACAGTCAGGTTGCCAGAGTTGCAG
CTGGTCTACAAATCAAGAACTCTTTGACATCTAAAGATCCAGATATCAAGGCACAATATCAGCAGAGGTGGCTTG
CTATTGATGCTAATGCTCGACGAGAAAGTCAAGAACTATGTTTTGCAGACATTGGGTACAGAACTTACCGGCCTA
GTTCTGCCTCACAGTGTGTGGCTGGTATTGCTTGTGCAGAGATCCAGTAAACAGTGGCCAGAAGTCAATTCCTC
AGCTGGTGGCCAATGTACAAAACCCCAACAGCACAGAGCACATGAAGGAGTCGACATTGGAAGCCATCGGTTATA
TTTGCCAAGATATAGACCCAGAGCAGCTACAAGATAAATCCAATGAGATTCTGACTGCCATAATCCAGGGGATGA
GGAAAGAAGAGCCTAGTAATAATGTGAAGCTAGCTGCTACGAATGCACCTCCTGAAGTCAATTGGAGTTCACCAAAG
CAAACCTTTGATAAAGAGTCTGAAAGGCACTTTATTATGCAGGTGGTCTGTGAAGCCACACAGTGTCCAGATACGA
GGGTACGAGTGGCTGCTTTACAGAATCTGGTGAAGATAATGTCCTTATATTATCAGTACATGGAGACATATATGG
GTCTGCTCTTTTTGCAATCACAATCGAAGCAATGAAAAGTGACATTGATGAGGTGGCTTTACAAGGGATAGAAT
TCTGGTCCAATGTCTGTGATGAGGAAATGGATTTGGCCATTGAAGCTTCAGAGGCAGCAGAACAGGACGGCCCC
CTGAGCACACCAGCAAGTTTTATGCGAAGGGAGCACTACAGTATCTGGTTCCAATCCTCACACAGACACTAACTA
AACAGGACGAAAATGATGATGACGATGACTGGAACCCCTGCAAAGCAGCAGGGGTGTGCCTCATGCTTCTGGCCA
CCTGCTGTGAAGATGACATTGTCCCACATGTCTCCCTTCATTAAAGAACACATCAAGAACCCAGATTGGCGGT
ACCGGGATGCAGCAGTGTGGCTTTTGGTTGTATCTTGAAGGACCAGAGCCAGTCAGCTCAAACCACTAGTTA
TACAGGCTATGCCCACCCTAATAGAATTAATGAAAGACCCAGTGTAGTTGTTTCGAGATACAGCTGCATGGACTG
TAGGCAGAATTTGTGAGCTGCTTCTGAAGCTGCCATCAATGATGTCTACTTGGCTCCCCTGCTACAGTGTCTGA
TTGAGGGTCTCAGTGTGAACCCAGAGTGGCTTCAAATGTGTGCTGGGCTTTCTCCAGTCTGGCTGAAGCTGCTT
ATGAAGCTGCAGACGTTGCTGATGATCAGGAAGAACCAGCTACTTACTGCTTATCTTCTTCAATTTGAAGTCAATG
TTCAGAAGCTCCTAGAGACTACAGACAGACCTGATGGACACCAGAACACCTGAGGAGTTCTGCATATGAATCTC
TGATGGAAATTGTGAAAAACAGTGCCAAGGATTGTTATCCTGCTGTCCAGAAAACGACTTTGGTCAATCATGGAAC
GACTGCAACAGGTTCTTCAGATGGAGTCACATATCCAGAGCACATCCGATAGAATCCAGTTCAATGACCTTCAGT
CTTTACTCTGTGCAACTCTTCAGAAATGTTCTTCGGAAGTGCAACATCAAGATGCTTTGCAGATCTCTGATGTGG
TTATGGCCTCCCTGTTAAGGATGTTCCAAAGCACAGCTGGGTCTGGGGGAGTACAAGAGGATGCCCTGATGGCAG
TTAGCACACTGGTGAAGTGTGGGTGGTGAATTCCTCAAGTACATGGAGGCCTTTAAACCTTCCTGGGCATTG
GATTAATAAATATGCTGAATACCAGGTTTGTGGCAGCTGTGGGCTTAGTGGGAGACTTGTGCCGTGCCCTGC
AATCCAACATCATACTTTCTGTGACGAGGTGATGCAGCTGCTTCTGGAAAATTTGGGGAATGAGAAGCTCCACA
GGTCTGTGAAGCCGAGATTCTGTGAGTGTGGTGTATTTGCCCTTGCTATTGGAGGAGAGTTAAAAAATCT
TAGAGGTTGTATTGAATACTCTTCAGCAGGCCTCCCAAGCCAGGTGGACAAGTCAGACTATGACATGGTGGATT
ATCTGAATGAGCTAAGGGAAAGCTGCTTGAAGCCTATACTGGAATCGTCCAGGGATTAAAGGGGGATCAGGAGA
ACGTACACCCGGATGTGATGCTGGTACAACCCAGAGTAGAATTTATTCTGTCTTTCATTGACCACATTGCTGGAG
ATGAGGATCACACAGATGGAGTAGTAGCTTGTGCTGCTGGACTAATAGGGGACTTATGTACAGCAATTTGGGAAGG
ATGTACTGAAATTAGTAGAAGCTAGGCCAATGATCCATGAATTGTTAACTGAAGGGCGGAGATCGAAGACTAACA
AAGCAAAAACCTTGCTACATGGGCAACAAAAGAACTGAGGAACTGAAGAACCAGCTGATCTGTGTACCATTG
GGATGATAACCTGAGGACCCCACTGGAATCTCCATCTTTTGA AAAACCTGGAAGTGAGGAGTGTGCACGGAT
GCTGAATGTTTGGGAATGAGAGGATGAGTGAGTGAGGCTTGA AAACACACCACATTGAAAATCCTGCCACAGCAG
CAGCCGCAGCCGCAACAGCAGCGCTGTAGTGAGCTAAGTAAGCACTGACTTCGTAGAAAACCATACATCGGC
CATCTTGGAAAAGAGAAAACAATGGAGTTACTTATTTAAAAA

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FIGURE 4835

MELITILEKTVSPDRLELEAAQKFLERAAVENLPTFLVELSRVLANPGNSQVARVAAGLQIKNSLTSKDPDIKAQ
YQQRWLAI DANARREVKNYVLQTLGTETYPSSASQCVAGIACAEIPVNQWPELIPQLVANVTNPNSTEHMKEST
LEAIGYICQDIDPEQLQDKSNEILTAI IQGMRKEEPSNNVKLAATNALLNSLEFTKANFDKESERHFIMQVVCEA
TQCPDTRVRVAALQNLVKIMSLYYQYMETYMGFALFAITIEAMKSDIDEVALQGIEFWSNVCDEEMDLAIEASEA
AEQGRPPEHTSKFYAKGALQYLVPILTQTLTKQDENDDDDDDWNPCKAAGVCLMLLATCCEDDIVPHVLPFIKEHI
KNPDWRYRDAAVMAFGCILEGPEPSQLKPLVIQAMPTLIELMKDPSVVVRDTAAWTVGRICELLPEAAINDVYLA
PLLQCLIEGLSAEPRVASNVCWAFSSLAEEAAYEADVADDQEEPATYCLSSSFELIVQKLETTDRPDGHQNNLR
SSAYESLMEIVKNSAKDCYPVQKTTLVIMERLQQVLQMESHIQSTSDRIQFNDLQSLLCATLQNVLRKVQHQDA
LQISDVVMASLLRMFQSTAGSGGVQEDALMAVSTLVEVLGGEFLKYMEAFKPFLGIGLKNYA EYQVCLAAGVLVG
DLCRALQSNIIPFCDEVMQLLENLGNENVHRSVKPQILSVFGDIALAIGGEFKKYLEVVLNTLQQASQAQVDKS
DYDMVDYLNELRESCLEAYTGIVQGLKGDQENVHPDVMLVQPRVEFILSFIDHIAGDEDHTDGVVACAAGLIGDL
CTAFGKDV LKLV EARP MIHELLTEGRRSKTNKAKTLATWATKELRKLNQA

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FIGURE 4836

CCCTCCCCCTCCGCCCCCTTCCCCGTAGGCAGCCCGCCCGCCAGTCCGCCCCGCACCGCCTCCTTCCCAGCCCCCTAG
CGCTCCGGCTGGGTCTCTCCCCCGCCCCCAGGCTCCCCCGGTGCTCTCCTCCGGCGGTGCCCCGCGCTCGGTG
GATGTGGCTGGCAGCTGCCGCCCCCTCCCTCGCTCGCCGCTGCTCTTCTCGGCCCTCCGCTCCTCCCCCTCCT
CCTTCTCGTCTTCAGCCGCTCCTCTCGCCGCCGCTCCACAGCCTTGGGCCTCGCCGCGATGCCGAGAAGAGGCC
CTTCGAGCGGCTGCCGATGTCTCCCCATCAACTACAGCCTTTGCCTCAAGCCCGACTTGCTGGACTTCAC
CTTCGAGGGCAAGCTGGAGGCCGCCGCCAGGTGAGGCAGGCGACTAATCAGATTGTGATGAATTGTGCTGATAT
TGATATTATTACAGCTTCATATGCACCAGAAGGAGATGAAGAAATACATGCTACAGGATTTAACTATCAGAATGA
AGATGAAAAAGTCACCTTGTCTTTCCCTAGTACTCTGCAAACAGGTACGGGAACCTTAAAGATAGATTTTGTGG
AGAGCTGAATGACAAAATGAAAGGTTTCTATAGAAGTAAATATACTACCCCTTCTGGAGAGGTGCGCTATGCTGC
TGTAACACAGTTTGAGGCTACTGATGCCCCGAAGGGCTTTTCCTTGCTGGGATGAGCCTGCTATCAAAGCAACTTT
TGATATCTCATTGGTTGTTCTAAAGACAGAGTAGCTTTATCAAACATGAATGTAATTGACCGGAAACCATACCC
TGATGATGAAAAATTTAGTGGAAGTGAAGTTTGCCCGCACACCTGTTATGTCTACATATCTGGTGGCATTGTGTTGT
GGGTGAATATGACTTTGTAGAAACAAGGTCAAAAGATGGTGTGTGTGTCCTGTTTACACTCCTGTTGGCAAAGC
AGAGCAAGGAAAAATTTGCGTTAGAGGTTGCTGCTAAAACCTTGCTTTTATAAGGACTACTTCAATGTTTCCTTA
TCCTCTACCTAAAATTGATCTCATTGCTATTGCAGACTTTGCAGCTGGTGCCATGGAGAAGTGGGGCCTTGTTAC
TTATAGGGGAGACTGCATTGCTTATTGATCCAAAAAATTCCTGTTCTTCATCCCGCCAGTGGGTTGCTCTGGTTGT
GGGACATGAAGTGCCTGCTTGAATATCTGTGTGTAGACCACTGCTTCCCAGAGTATGATATTTGGACTCAGTTTGT
TTCTGCTGATTACCCCGTGCCAGGAGCTTGACGCCTTAGATAACAGCCATCCTATTGAAGTCAGTGTGGGCCA
TCCATCTGAGGTTGATGAGATATTTGATGCTATATCATATAGCAAAGGTGCATCTGTCATCCGAATGCTGCATGA
CTACATTGGGGATAAGGACTTTAAGAAAGGAATGAACATGTATTTAACCAAGTTCCAACAAAAGAATGCTGCCAC
AGGTAATCTCTTAATAGCTTGAGATAGAAATGGAGAGAAAGTATTGTCACTCTATCCAGGCTGGGACATTTTATTT
TTGTTCTGAATACTTAAGGTCAGGATCCATGTAATAAATAAATTAGCCTTATTTG

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FIGURE 4837

MWLAAAAPSLARRLLFLGPPPPPLLLLVSRRSRRRLHSLGLAAMPEKRPFERLPADVSPINCSLCLKPDLLDFT
FEGKLEAAAQVRQATNQIVMNCADIDIITASYAPEGDEEIHATGFNYQNEDEKVTLSTLQGTGTGTLKIDFVG
ELNDKMKGFYRSKYTTSPSGEVRYAAVTQFEATDARRAFPCWDERAIKATFDISLVVPKDRVALSNMNVIDRKPY
DDENLVEVKFARTPVTSTYLVAFFVGEYDFVETRSDGVCVCVYTPVGKAEQKFALEVAAKTLFFYKDYFNVPY
PLPKIDLIAIADFAAGAMENWDLVTYRETALLIDPKNSCSSRQWVALVVGHELAHQWFGNLVTMEWWTHLRNE
GFASWIEYLCVDHCFPEYDIWTQFVSADYTRAQELDALDNSHP IEVSVGHPSEVDEIFDAISYSGASVIRMLHD
YIGDKDFKKGMNMYLTKFQQKNAAAGNL

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FIGURE 4838

CGCCCGGGCAGGTCTCCCGGAAGTGGCCGGTCCAGAGCTGTGGGGTGCCTCCGCGCGGTCTCTGGCGGATCGGGG
AATCGGATCAAGGCGAGAGGATCCGGCAGGGAAGGAGCTTCGGGGCCGGGGGTGGGGCCGCACATTTACGTGCGC
GAAGCGGAGTGGACCGGGAGCTGGTGACGATGGCGGGGCCGAGCCCCCTGGCGCTGCAACTGGAACAGTTGTTGA
ACCCGCGACCAAGCGAGGCGGACCCCTGAAGCGGACCCCGAGGAAGCCACTGCTGCCAGGGTGATTGACAGGTTTG
ATGAAGGGGAAGATGGGGAAGGTGATTTCCCTAGTAGTGGGTAGCATTAGAAAAGTGGCATCAGCCTCCCTCTTG
ACACGGACAAAAGGTATTGCGGCAAAACCACTCTAGAAAAGCATGGAATGAAGACCATTGGGAGCAGACTCTGC
CAGGATCGTCTGATGAGGAAATATCTGATGAGGAAGGGTCTGGAGATGAAGATTGAGAGGGACTGGGTCTGGAGG
AATATGATGAGGACGACCTGGGTGCTGCTGAGGAACAGGAGTGTGGTGATCACAGGGAGAGCAAGAAGAGCAGAA
GCCACTCTGCAAAAACACCGGGCTTCAGTGCTCCAGAGTATCAGTGACTTTGAGAAATTTACCAAGGGAATGGATG
ACCTTGGGAGCAGTGAGGAGGAGGAAGACGAAGAGAGTGGCATGGAAGAAGGGGATGACGCGGAAGACTCCCAAG
GCGAGAGTGAGGAAGACAGGGCTGGAGATAGAAAACAGTGAGGATGATGGTGTGGTGATGACCTTCTCTAGTGTC
AAGTTTCTGAGGAAGTGGAGAAAAGGAAGAGCCGTGAAGAACCAGATAGCACTGTGGGACCAGCTCTTGGAAGGAA
GGATCAAACACAAAAGCTCTGTTGACCACCAACCAGCTTCCTCAACCAGATGTTTTCCATTGTTCAAGGACA
AAGGTGGCCAGAAATTTCCAGTGCCCTGAAAAATAGTCACAAGGCACCTAAAGCATTGTTGAGGTCATTGGTAG
GTCTTCAGGAAGAGTTGCTTTTCCAGTACCCAGACACTAGATATCTAGTAGATGGGACAAAGCCCAATGCGGGAA
GTGAGGAGATTTCTAGTGAAAGATGATGAGCTGGTAGAAGAGAAGAAGCAGCAACGAAGAAGGGTCCCTGCAAGA
GGAAGCTGGAGATGGAGGACTATCCCAGCTTCATGGCAAAGCGCTTTGCCGACTTTACAGTCTACAGGAACCGCA
CACTTCAGAAATGGCACGATAAGACCAAACTGGCTTCTGGAAAAGTGGGGAAGGGTTTTGGTGCTTTGAACGCT
CAATCTTGACTCAGATCGACCATATTTCTGATGGACAAAGAGAGATTACTTCGAAGGACACAGACCAAGCGCTCTG
TCTATCGAGTTCTTGCAAACCTGAGCCAGCAGCTCAGCCTGTCCCAGAGAGTTTGCCAGGGGAACCGGAGATCC
TTCCTCAAGCCCCTGCTAATGCTCATCTGAAGGACTTGGATGAAGAAATCTTTGATGATGATGACTTTTACCACC
AGCTCCTTCGAGAACTCATAGAACGGAAGACCAGCTCCTTGGATCCCAACGATCAGGTGGCCATGGGAAGGCAGT
GGCTTGCAATCCAGAAAGTTACGAAGCAAAATCCACAAAAAGTAGATAGGAAAGCCAGCAAAGGCAGGAACTTC
GGTTTCATGTCCTTAGCAAGCTACTGAGTTTCATGGCACCTATTGACCATACTACAATGAATGATGATGCCAGGA
CAGAACTGTACCGCTCTCTTTTGGCCAGCTCCACCCTCCCGACGAAGGCCACGGGGATTGACATCGCCACCTC
CGACACCCAGTGGGCGCCTTGGCTGGTGCGGCTGCTGGTCCAGATGGAGGAAACAGTGACTTTATGGGGCTGAG
CTAGTAGGGAAGCCCCCTGGAAAGATGCTGCGTTCCGAACCTGTGCCTAATACACGCAAGGGCGCTGTCCCGCCCA
ACCCCGCCTTTAAACGCCACAAATAAAGAGCATTGTTACCGCCAAAAA

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FIGURE 4839

MAGPQPLALQLEQLLNPRPSEADPEADPEEATAARVIDRFDEGEDGEGDFLVVGSIRKLASASLLDTDKRYCGKT
TSRKAWNEDHWEQTLPGSSDEEISDEEGSGDEDSEGLGLEEYDEDDLGAEEQECGDHRESKKSRSKSAKTPGFS
VQSISDFEKFTKGMDLGSSEEEDEESGMEEGDDAEDSQGESEEDRAGDRNSEDGVMFTFSSVKVSEEEVEKGR
AVKNQIALWDQLLEGRIKLQKALLTTNQLPQPDVFPFLFKDKGGPEFSSALKNSHKALKALLRSLVGLQEELLFQY
PDTRYLVDGTPNAGSEEISSEDELVEEKKQORRRVPAKRKLEMEDYPSFMAKRFADFTVYRNRTLQKWHDKTK
LASGKLGKGFAGAFERSILTQIDHILMDKERLLRRTQTKRSVYRVLGKPEPAAQVPESLPGEPEILPQAPANAH
KDLDEEIFDDDDFYHQLLRELIERKTSSLDPNQVAMGRQWLAIQKLRSKIHKKVDRKASKGRKLRFHVLSKLLS
FMAPIDHTTMNDARTELYRSLFGQLHPPDEGHGD

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FIGURE 4840

CTTCCCGCCGCTGACCTGGCCCCGCCGCTTTCCAGTCTGGCCGGCGGGGCCTGAAGCACGGCGCTCGGGCGT
GGGACCGTGTTACACCCCTTTCCAGAAATTCTTGGCTGGTAACCGCGAAACCGACTGGAGCAGGAGCTGGGAGAA
CTGGAGAAAACTGCTCTAATCTCACTTGACTCCAGCTAGGAGCTGATGCTGCATCGTAATAACATTTGCAGAGCG
CTTTCACAGGCGCTGGAGTGACTTGTCTGAGATTCTCCAGAACTGAGCCCTTTGTTGGAACCATACCCAGCCC
ATGGTCCCATGACTAGGTGGATAGTACTCCTTGTACCTCCTGCAACCCAGAACCCTGGCTGACCACTTTGAAGGA
GGATGCTCCAGCAGGTCAATGGCCACAATCCGGGGTCTGATGGCCAAGCCAGGGAGTACCTCAGAGAAGACCTGC
AGGAGTTCCTGGGTGGGGAGGTCTGTCTGTACAACTGGATGACCTCACCAGGGTGAATCCTGTGACACTAGAGA
CAGTCTGAGGTGCCTGCAGGCCCCGGTACATGGCAGACACATTCTACACCAATGCTGGCTGCACCCTGGTAGCCT
TGAACCCCTTCAAGCCTGTTCTCCTCAGCTCTACTCGCCGAGCTAATGAGAGAGTACCATGCTGCGCCTCAGCCCC
AGAACTGAAGCCCCATGTGTTCACTGTGGGTGAACAGACCTACAGGAATGTCAAGAGCCTGATTGAACCACTCA
ACCAGTCTATTGTTGTGCTAGTGAGAGAGTGGTGTCTGGAAAGACATGGACGTCTCGCTGCCTAATGAAGTTCTATG
CTGTGGTGGCCACCTCACCTGCATCTTGGGAGAGCCACAAGATTGCAGAGAGGATAGAACAGAGGATCCTGAACCT
CCAACCTGTGATGGAAGCTTTTGGGAATGCGTGTACACTGAGGAATAACAACAGCAGTCGCTTTGGGAAGTTCA
TCCAGCTCCAGCTGAACAGGGCTCAGCAAATGACTGGAGCCGCGAGTCCAGACCTACCTCCTAGAGAAAACCTCGAG
TGGCCTGCCAGGCTTCCAGTGAGAGGAACTTCCACATCTTCTATCAGATTTGCAAAGGAGCCAGTGAGGACGAGA
GGCTCCAGTGGCACCTTCTGAGGGAGCTGCCTTCTCCTGGCTGCCCAACCCAGAGAGGAGCTTAGAAGAGGATT
GTTTTGAGGTGACCAGAGAGGCCATGCTCCATTTGGGCATTGACACCCCTACCCAGAACAAACATCTTTAAGGTCC
TAGCTGGACTGCTGCACCTTGGCAATATCCAGTTTGTCTGCCTCCGAGGATGAAGCCCAGCCCTGCCAGCCGATGG
ATGATGCCAAGTACTCTGTGAGGACGGCAGCCTCGCTGCTGGGGCTCCCAGAGGACGTGCTGCTGGAGATGGTGC
AGATTAGAACCATCAGGGCAGGCAGACAGCAGCAGGTGTTCCGGAAGCCCTGCGCCCGAGCCGAGTGTGACACCC
GTAGAGACTGCCTGGCCAACTGATCTATGCGCGGTTGTTTGACTGGCTGGTATCAGTGATCAACAGCAGCATCT
GTGCAGACACCGACTCGTGGACCACTTTTCATAGGCTGCTGGATGTGTATGGATTTGAATCATTTCCTGACAACA
GTCTGGAACAGTTGTGCATCAACTACGCCAATGAGAAGCTGCAGCTGGAGGCCTGTGGCCTCGTGGAGACCATCC
ATATCAGTGCTGCTGGCTTCCCCATCCGGGTCTCTCACCAGAACTTTGTAGAACGATACAAGTTACTAAGAAAGGC
TTCATCCTTGCACATCCTCTGGCCCCGACAGCCCATATCCTGCCAAAGGGCTCCCTGAATGGTGTCCACACAGCG
AGGAAGCCACGCTTGAACCTCTCATCCAGGACATTCTCCACACTCTGCCGGTCTTAACCTCAGGCAGCAGCCATAA
CTGGTGACTCGGCTGAGGCCATGCCAGCCCCATGCACTGTGGCAGGACCAAGGTGTTTCATGACTGACTCTATGC
TGGAGCTTCTGGAATGTGGGCGTGCCCGGGTGTGGAGCAGTGTGCCCGCTGCATCCAGGGTGGCTGGAGGCGAC
ACCGGCACCGAGAGCAGGAGCGGCAGTGGCGGGCGTCTGCTCATCCAGGCAGCCATTGTTTCTGGTTAACTC
GGAAACACATCCAGAGGCTGCATGCAGCTGCCACAGTCAAGCGTGCATGGCAGAACTGGAGAATCAGAATGG
CCTGCCTTGCTGCTAAAGAGCTGGATGGTGTGGAAGAAAAACACTTCTCTCAAGCTCCCTGTTCCCTGAGCACCT
CGCCGCTGCAGACCAGGCTCCTGGAGGCAATAATCCGCCTCTGGCCCCCTGGGACTGGTCTTGGCCAATACGGCTA
TGGGTGTAGGCAGCTTTTCAGAGGAAATTAGTGGTCTGGGCTTGCCTCCAGCTCCCCAGGGGACGCCCCAGTAGCT
ACACTGTCCAGACAGCACAAAGACCAGGCTGGTGTACGTCCATCCGAGCGCTGCCTCAGGGATCGATAAAGTTTC
ACTGCAGAAAGTCTCCACTGCGGTATGCTGACATCTGCCCTGAACCTTCACCTTACAGCATTACAGGCTTTAATC
AGATTCTGCTGGAAGACACAGGCTGATCCACGTGACCTCTTCTGCCTTCACTGGGCTGGGGTGATCCTTGGTGC
CTTTGTTTCCACAAGGCCTTTTCTGCCCCCTGCCTTGCCAAAGACATTTAATCAGCACACAGCTGCCAGACTAT
TCCCACAGTGCTCCAAATGCACATGAACAACAGTGACGGCTCCAGCCTTCGACCCAGAGCCCCGTGCCAGTGCG
TCAGTGGGCCTGGGGTTCAGGCTACATCAAGCACTGATGGTGTGAGGGCTGGTAGTTACCAAAATCAGGGTTAAG
AAACATCAGGGCCACATTTCACTACCTTCACAGATCAAACTCAGCAGCAGTCATGACTGTCTGCTACTACACTGG
GGATCCCAATTCCACATAAGCACTTTTGGGAAGAAAAAGCCAAAGTTGGCCTAAAATTGGCGCTGGAATTTGGGC
TGGGAAAAATCTTGTGGTTATTTCTTTAAAAAGGAACAAAACCTTAGTATTTAATTAGTTGATTATTTAATGT
AATTTCAACAATTAAATTATGAATAATGCAATGT

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FIGURE 4841

ATGGACATGGCGGATGAGCCACTCAATGGAAGCCACACATGGCTATCCATTCCATTTGACCTCAATGGCTCTGTG
GTGTCAACCAACACCTCAAACCAGACAGAGCCGTACTATGACCTGACAAGCAATGCAGTCCTCACATTCATCTAT
TTTGTGGTCTGCATCATTGGGTTGTGTGGCAACACACTTGTCAATTTATGTCATCCTCCGCTATGCCAAGATGAAG
ACCATCACCAACATTTACATCCTCAACCTGGCCATCGCAGATGAGCTCTTCATGCTGGGTCTGCCTTTCTTGGCT
ATGCAGGTGGCTCTGGTCCACTGGCCCTTTGGCAAGGCCATTTGCCGGGTGGTCATGACTGTGGATGGCATCAAT
CAGTTCACCAGCATCTTCTGCCTGACAGTCATGAGCATCGACCGATACCTGGCTGTGGTCCACCCCATCAAGTCG
GCCAAGTGGAGGAGACCCCGGACGGCCAAGATGATCACCATGGCTGTGTGGGGAGTCTCTCTGCTGGTCATCTTG
CCCATCATGATATATGCTGGGCTCCGGAGCAACCAGTGGGGGAGAAGCAGCTGCACCATCAACTGGCCAGGTGAA
TCTGGGGCTTGGTACACAGGGTTCATCATCTACACTTTTATTCTGGGGTTCCTGGTACCCCTCACCATCATCTGT
CTTTGCTACCTGTTTATTATCATCAAGGTGAAGTCCTCTGGAATCCGAGTGGGCTCCTCTAAGAGGAAGAAGTCT
GAGAAGAAGGTCACCCGAATGGTGTCCATCGTGGTGGCTGTCTTCATCTTCTGCTGGCTTCCCTTCTACATATTC
AACGTTTCTTCCGTCTCCATGGCCATCAGCCCCACCCAGCCCTTAAAGGCATGTTTGACTTTGTGGTGGTCCTC
ACCTATGCTAACAGCTGTGCCAACCTATCCTATATGCCTTCTTGTCTGACAACTTCAAGAAGAGCTTCCAGAAT
GTCCTCTGCTTGGTCAAGGTGAGCGGCACAGATGATGGGGAGCGGAGTGACAGTAAGCAGGACAAATCCCGGCTG
AATGAGACCACGGAGACCCAGAGGACCCTCCTCAATGGAGACCTCCAAACCAGTATCTGA

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FIGURE 4842

MDMADEPLNGSHTWLSIPFDLNGSVVSTNTSNQTEPYDLTSTNAVLTFIYFVVCIIIGLCGNTLVIYVILRYAKMK
TITNIYILNLAIADELFMLGLPFLAMQVALVHWPFGKAICRVVMTVDGINQFTSIFCLTVMSIDRYLAVVHPIKS
AKWRRPRTAKMITMAVWGVSLLVILPIMIIYAGLRSNQWGRSSCTINWPGESGAWYTGFIITYFILGFLVPLTIIC
LCYLFIIIKVKSSGIRVGSSKRKKSEKKVTRMVSIVVAVFIFCWLPFYIFNVSSVSMAISPTPALKGMFDFVVVL
TYANSCANPILYAFLSDNFKKSFQNVLCVLKVS GTDDGERSDSKQDKSRLNETTETQRTLLNGDLQTSI

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FIGURE 4843

CAGCGAGCCGCGAGCGCAATCCCGGCGCTCGCCCAAGGACCCTGGAAGCTACCGTTACCCCGCCGGCAGCGTGGGC
GCCATGAGCAGCTCGGGACTGAATTCGGAGAAGGTAGCTGCTCTGATACAGAACTGAATTCCGACCCCCAGTTC
GTACTTGCCCAAGATGTCGGGACCACCCACGACCTGCTGGACATCTGTCTGAAGCGGGCCACGGTGACGCGCGC
CAGCATGTGTTCCAGCACGCCGTGCCCCAGGAGGGCAAGCCAATCACCAACCAGAAGAGCTCAGGGCGATGCTGG
ATCTTTTCTGTCTGAATGTTATGAGGCTTCCATTTCATGAAAAAGTTAAATATTGAAGAATTTGAGTTTAGCCAA
TCTTACCTGTTTTTTTTGGGACAAGGTTGAACGCTGTTATTTCTTCTTGAGTGCTTTTGTGGACACAGCCCAGAGA
AAGGAGCCTGAGGATGGGAGGCTGGTGCACTTTTTGCTTATGAACCCTGCAAATGATGGTGGCCAATGGGATATG
CTTGTTAATATTGTTGAAAAATATGGTGTTATCCCTAAGAAATGCTTCCCTGAATCTTATACAACAGAGGCAACC
AGAAGGATGAATGATATTCTGAATCACAAGATGAGAGAATTCTGTATACGACTGCGGAACCTGGTACACAGTGGA
GCAACCAAAGGAGAAATCTCGGCCACACAGGACGTCATGATGGAGGAGATATTCCGAGTGGTGTGCATCTGTTTG
GGTAATCCACCAGAGACATTACCTGGGAATATCGAGACAAAAGATAAAAAATTATCAGAAAATTGGCCCCATAACA
CCCTTGGAGTTTTACAGGGAACATGTCAAGCCACTCTTCAATATGGAAGATAAGATTTGTTTAGTGAATGACCTT
AGGCCCCAGCACAAAGTACAACAACTTTACACAGTGGAATACTTAAGCAATATGGTTGGTGGGAGAAAACTCTA
TACAACAACCAGCCCATTGACTTCCTGAAAAAGATGGTTGCTGCCTCCATCAAAGATGGAGAGGCTGTGTGGTTT
GGCTGTGATGTTGGAAAACACTTCAATAGCAAGCTGGGCCTCAGTGACATGAATCTCTATGACCATGAGTTAGTG
TTTGGTGTCTCCTTGAAGAACATGAATAAAGCGGAGAGGCTGACTTTTGGTGAGTCACTTATGACCCACGCCATG
ACCTTCACTGCTGTCTCAGAGAAGGATGATCAGGATGGTGCTTTCACAAAATGGAGAGTGGAGAATTCATGGGGT
GAAGACCATGGCCACAAAGGTTACCTGTGCATGACAGATGAGTGGTTCTCTGAGTATGTCTACGAAGTGGTGGTG
GACAGGAAGCATGTCCCTGAAGAGGTGCTAGCTGTGTTAGAGCAGGAACCCATTATCTGCCAGCATGGGACCCC
ATGGGAGCTTTGGCTGAGTGATGACTGCCCTCCAGCTCTTTCCTCCTCCATGGAACCTGACGTAGCTGCAAAGGA
CAGATCCAGGGACTGAAGCCAAAGTTATGCAAGGGACTGTGTGTTGCCACAGGACACAGTCAGATTTCCAGTCTC
CACCAGGAACCTCTTCAGAAAGTGTGCTTTATGCTGAAACAGAATACTGTTAAAGGAAAAAAGAGGGGGGAAG
ATCAGGTCATACTATCTACTCTCCTCATCTCTAACAGCTCAGGATCTCTTAGCATTTTAATTAGATGTAATTGTT
TGTCTTTAACTGTCAAAAAGTTTGGTTCTGTGTCTGTGTTTAAATAAGACGAGAGGACGAGCGATTGAGGTGTAT
GGAGAGAAAACAGACCTAATGCTCCTTGTTCCTAGAGTAGAGTGGAGGGAGGGTGGCCTAAGAGTTGAGCTCTCG
GAAC TG CAT GCT GCT GGC AGT ATCA CTGTCTTTCCTAGATGGCAGTCACTGAATTC

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FIGURE 4844

MSSSGLNSEKVAALIQKLNSDPQFVLAQNVGTTHDLLDICKRATVQRAQHVFQHAVPQEGKPITNQKSSGRCWI
FSCLVNMRPFPMMKKLNIEEFESQSYLFFWDKVERCYFFLSAFVDTAQRKEPEDGRLVQFLLMNPANDGGQWDM
VNIVEKYGVIPKKCFPESYTTEATRRMNDILNHKMREFCIRLRNLVHSGATKGEISATQDVMMEEIFRVVCICLG
NPPETFTWEYRDKDKNYQKIGPITPLEFYREHVKPLFNMEDKICLVNDFRPQHKYNKLYTVEYLSNMVGGRTLY
NNQPIDFLKKMVAASIKDGEAVWFGCDVGKHFNSKLGLSDMNLYDHELVFGVSLKNMNKAERLTFGESLMTHAMT
FTAVSEKDDQDGAFTKWRVENSWGEDHGHKGYLCMTDEWFSEYVYEVVVDRKHVPEEVLAVLEQEP IILPAWDPM
GALAE

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FIGURE 4845

G TAGTCTGAGCGCTACCCGGTTGCTGCTGCCCCAAGGACCGCGGAGTCGGACGCAGGCAGACCATGTGGACCCTGG
TGAGCTGGGTGGCCTTAACAGCAGGGCTGGTGGCTGGAACGCGGTGCCAGATGGTCAGTTCTGCCCTGTGGCCT
GCTGCCTGGACCCCGGAGGAGCCAGCTACAGCTGCTGCCGTCCCCCTTCTGGACAAATGGCCCACAACACTGAGCA
GGCATCTGGGTGGCCCCCTGCCAGGTTGATGCCCCACTGCTCTGCCGGCCACTCCTGCATCTTTACCGTCTCAGGGA
CTTCCAGTTGCTGCCCCCTTCCCAGAGGCCGTGGCATGCGGGGATGGCCATCACTGCTGCCACGCGGGCTTCCACT
GCAGTGCAGACGGGCGATCCTGCTTCCAAAGATCAGGTAACAACCTCCGTGGGTGCCATCCAGTGCCCTGATAGTC
AGTTCGAATGCCCGGACTTCTCCACGTGCTGTGTTATGGTCGATGGCTCCTGGGGGTGCTGCCCCATGCCCCAGG
CTTCTGCTGTGAAGACAGGGGTGCACTGCTGTCCGCACGGTGCCCTTCTGCGACCTGGTTTACACCCGCTGCATCA
CACCCACGGGCACCCACCCCCCTGGCAAAGAAGCTCCCTGCCCAGAGGACTAACAGGGCAGTGCCCTTGTCCAGCT
CGGTCAATGTGTCCGGACGCACGGTCCCGGTGCCCTGATGGTTCTACCTGCTGTGAGCTGCCCAGTGCGGAAGTATG
GCTGCTGCCCAATGCCCAACGCCACCTGCTGCTCCGATCACCTGCACTGCTGCCCCCAAGACACTGTGTGTGACC
TGATCCAGAGTAAGTGCCCTCTCCAAGGAGAAGCTACCACGGACCTCCTCACTAAGCTGCCTGCGCACACAGTGG
GGGATGTGAAATGTGACATGGAGGTGAGCTGCCCAGATGGCTATACCTGCTGCCGTCTACAGTCGGGGGCTGGG
GCTGCTGCCCTTTTACCCAGGCTGTGTGCTGTGAGGACCACATACACTGCTGTCCCGCGGGGTTTACGTGTGACA
CGCAGAAGGGTACCTGTGAACAGGGGGCCCCACAGGTGCCCTGGATGGAGAAGGCCCCAGCTCACCTCAGCCTGC
CAGACCCACAAGCCTTGAAGAGAGATGTCCCTGTGATAATGTCAGCAGCTGTCCCTCCTCCGATACCTGCTGCC
AACTCACGTCTGGGGAGTGGGGCTGCTGTCCAATCCCAGAGGCTGTCTGCTGCTCGGACCACCAGCACTGCTGCC
CCCAGGGCTACACGTGTGTAGCTGAGGGGCAGTGTGAGCGAGGAAGCGAGATCGTGGCTGGACTGGAGAAGATGC
CTGCCCCGCGGGCTTCCCTATCCCACCCAGAGACATCGGCTGTGACCAGCACACCAGCTGCCCGGTGGGGCAGA
CCTGCTGCCCGAGCCTGGGTGGGAGCTGGGCCTGCTGCCAGTTGCCCCATGCTGTGTGCTGCGAGGATCGCCAGC
ACTGCTGCCCGGCTGGCTACACCTGCAACGTGAAGGCTCGATCCTGCGAGAAGGAAGTGGTCTCTGCCCAGCCTG
CCACCTTCCTGGCCCGTAGCCCTCACGTGGGTGTGAAGGACGTGGAGTGTGGGAAGGACACTTCTGCCATGATA
ACCAGACCTGCTGCCGAGACAACCGACAGGGCTGGGCCTGCTGTCCCTACCGCCAGGGCGTCTGTTGTGCTGATC
GGCGCCACTGCTGTCTGCTGGCTTCCGCTGCGCAGCCAGGGGTACCAAGTGTGTCGCGAGGGAGGCCCCGCGCT
GGGACGCCCCCTTGAGGGACCCAGCCTTGAGACAGCTGCTGTGAGGGGACAGTACTGAAGACTCTGCAGCCCTCGG
GACCCCACTCGGAGGGTGCCCTCTGCTCAGGCCTCCCTAGCACCTCCCCCTAACCAAATTCTCCCTGGACCCCAT
TCTGAGCTCCCCATCACCATGGGAGGTGGGGCCTCAATCTAAGGCCTTCCCTGTGAGAAGGGGGTTGTGGCAAAA
GCCACATTACAAGCTGCCATCCCCCTCCCCGTTTTCAGTGGAACCTGTGGCCAGGTGCTTTTCCCTATCCACAGGGG
TGTTTGTGTGTGTGCGCGTGTGCGTTTCAATAAAGTTTGTACACTTTCAAAAAAAAAAAAAAAAAAAAAAAAAA
AAA

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FIGURE 4846

MWTLVSWVALTAGLVAGTRCPDGQFCPVACCLDPGGASYSCCRPLLDKWPTTLSRHLGGPCQVDAHCSAGHSCIF
TVSGTSSCCPFPEAVACGDGHHCCPRGFHCSADGRSCFQSRGNNVSGAIQCPDSQFECPDFSTCCVMVDGSWGCC
PMPQASCCEDRVHCCPHGAFCDLVHTRCITPTGTHPLAKKLPAQRTNRAVALSSVMCPDARSRCPDGSTCCELP
SGKYGCCPMFNATCCSDHLHCCPQDTVCDLIQSKCLSKENATTDLLTKLPAHTVGDVKCDMEVSCPDGYTCCRLQ
SGAWGCCPFTQAVCCEDHIHCCPAGFTCDTQKGTCEQGPHQVPWMEKAPAHLSLPDPQALKRDVPCDNVSSCPSS
DTCCQLTSGEWGCCPIPEAVCCSDHQHCCPQGYTCVAEGQCQRGSEIVAGLEKMPARRASLSHPRDIGCDQHTSC
PVGQTCCPSLGGSWACCQLPHAVCCEDRQHCCPAGYTCNVKARSCEKEVVSAQPATFLARSPHVGVKDVECGEGH
FCHDNQTCCRDNRQGWACCPYRQGVCCADRRHCCPAGFRCAARGTKCLRREAPRWDAPLRDPALRQLL

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FIGURE 4847

GGCTAGGTGCGCTGCGAGCGCGCGGAGCCACGAGGGCGGACGGACGTAATGGGCCCGCCTGGCCCTGGGCGCCGC
GCCGCACGAGCACCAGCCTAGAGCCAGGACTGAAGCTTCAAGATGGCTGACCAGGACCCCTGCGGGCATCAGCCCC
CTCCAGCAAATGGTGGCCTCAGGCACCGGGGCTGTGGTTACCTCTCTCTTCATGACACCCCTGGACGTGGTGAAG
GTTGCGCTGCAGTCTCAGCGGCCCTCCATGGCCAGCGAGCTGATGCCTTCCTCCAGACTGTGGAGCCTCTCTAT
ACCAAATGGAAGTGCCTCCTGTATTGCAATGGTGTCTGGAGCCTCTGTACCTGTGCCCAAATGGTGGCCGCTGT
GCCACCTGGTTTCAAGACCCTACCCGCTTCACTGGCACCATGGATGCCTTCGTGAAGATCGTGAGGCACGAGGGC
ACCAGGACCCTCTGGAGCGGCCTCCCGCCACCCTGGTGATGACTGTGCCAGCTACCGCCATCTACTTCACTGCC
TATGACCAACTGAAGGCCTTCCTGTGTGGTCGAGCCCTGACCTCTGACCTCTACGCACCCATGGTGGCTGGCGCG
CTGGCCCGCCTGGGCACCGTGACTGTGATCAGCCCCCTGGAGCTTATGCGGACAAAGCTGCAGGCTCAGCATGTG
TCGTACCGGGAGCTGGGTGCCTGTGTTCGAACTGCAGTGGCTCAGGGTGGCTGGCGCTCACTGTGGCTGGGCTGG
GGCCCCACTGCCCTTCGAGATGTGCCCTTCTCAGCCCTGTACTGGTTCAACTATGAGCTGGTGAAGAGCTGGCTC
AATGGGTTCAAGGCCGAAGGACCAGACTTCTGTGGGCATGAGCTTTGTGGCTGGTGGCATCTCAGGGACGGTGGCT
GCAGTGTGACTCTACCCCTTTGACGTGGTAAAGACCCAACGCCAGGTGCTCTGGGAGCGATGGAGGCTGTGAGA
GTGAACCCCTGCATGTGGACTCCACCTGGCTGCTGCTGCGGAGGATCCGGGCCGAGTCGGGCACCAAGGGACTC
TTTGCAGGCTTCCTTCCTCGGATCATCAAGGCTGCCCCCTCCTGTGCCATCATGATCAGCACCTATGAGTTCGGC
AAAAGCTTCTTCCAGAGGCTGAACCAGGACCGGCTTCTGGGCGGCTGAAGGGGCAAGGAGGCAAGGACCCCGTC
TCTCCACGGATGGGGAGAGGGCAGGAGGAGACCCAGCCAAGTGCCTTTTCCTCAGCACTGAGGGAGGGGGCTTG
TTTCCCTTCCCTCCCGGCGACAAGCTCCAGGGCAGGGCTGTCCCTCTGGGCGGGCCAGCACTTCCTCAGACACAA
CTTCTTCCTGCTGCTCCAGTCTGTGGGATCATCACTTACCCACCCCAAGTTCAAGACCAAATCTTCCAGCTGC
CCCCCTCGTGTTTCCCTGTGTTTGCTGTAGCTGGGCATGTCTCCAGGAACCAAGAAGCCCTCAGCCTGGTGTAGT
CTCCCTGACCCTTGTTAATTCTTAAGTCTAAAGATGATGAACCTCAAAAAAAAAA

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FIGURE 4848

MADQDPAGISPLQQMVASGTGAVVTSLEMTPLDVVKVRLQSQRPMSASEIMPSSRLWSLSYTKWKCLLYCNGVLE
PLYLCPNGARCATWFQDPTRFTGTMDAFVKIVRHEGTRTLWSGLPATLVMTVPATAIYFTAYDQLKAFLCGRALT
SDLYAPMVAGALARLGTVTVISPLELMRTKLQAQHVSYRELGACVRTAVAQGGWRSLWLGWGPTALRDVPFSALY
WFNYELVKSWLNGFRPKDQTSVGMSFVAGGISGTVAAVLTLEFDVVKTORQVALGAMEAVRVNPLHVDSTWLLLR
RIRAESGKGLFAGFLPRIIKAAPSCAIMISTYEFGKSFFQRLNQDRLLGG

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FIGURE 4849

GGAGCCGTCACCCCGGGCGGGGACCCAGCGCAGGCAACTCCGCGCGGGCGGCCGAGGGAGGGAGCGAGCGG
GCGGGCGGGCAAGCCAGACAGCTGGGCCGGAGCAGCCGCGGGCGCCCGAGGGGCCGAGCGAGATTGTAAACCATG
GCTGTGTGGATACAAGCTCAGCAGCTCCAAGGAGAAGCCCTTCATCAGATGCAAGCGTTATATGGCCAGCATTTT
CCCATTGAGGTGCGGCATTATTTATCCAGTGGATTGAAAGCCAAGCATGGGACTCAGTAGATCTTGATAATCCA
CAGGAGAACATTAAGGCCACCCAGCTCCTGGAGGGCCTGGTGCAGGAGCTGCAGAAGAAGGCAGAGCACCAGGTG
GGGGAAGATGGGTTTTTACTGAAGATCAAGCTGGGGCACTATGCCACACAGCTCCAGAACACGTATGACCGCTGC
CCCATGGAGCTGGTCCGCTGCATCCGCCATATATTGTACAATGAACAGAGGTTGGTCCGAGAAGCCAACAATGGT
AGCTCTCCAGCTGGAAGCCTTGCTGATGCCATGTCCCAGAAACACCTCCAGATCAACCAGACGTTTGAGGAGCTG
CGACTGGTCACGCAGGACACAGAGAATGAGTTAAAAAAGCTGCAGCAGACTCAGGAGTACTTCATCATCCAGTAC
CAGGAGAGCCTGAGGATCCAAGCTCAGTTTGGCCCGCTGGCCAGCTGAGCCCCAGGAGCGTCTGAGCCGGGAG
ACGGCCCTCCAGCAGAAGCAGGTGTCTCTGGAGGCCTGGTTGCAGCGTGAGGCACAGACACTGCAGCAGTACCGC
GTGGAGCTGGCCGAGAAGCACCAGAAGACCCTGCAGCTGCTGCGGAAGCAGCAGACCATCATCTGGATGACGAG
CTGATCCAGTGGAAGCGGCGGCAGCAGCTGGCCGGGAACGGCGGGCCCCCGAGGGCAGCCTGGACGTGCTACAG
TCCTGGTGTGAGAAGTTGGCCGAGATCATCTGGCAGAACCGGCAGAGATCCGCAGGGCTGAGCACCTCTGCCAG
CAGCTGCCCATCCCCGGCCAGTGGAGGAGATGCTGGCCGAGGTCAACGCCACCATCACGGACATTATCTCAGCC
CTGGTGACCAGCACATTTCATTGAGAAGCAGCCTCCTCAGGTCTGAAGACCCAGACCAAGTTTGCAGCCACC
GTACGCCTGCTGGTGGGCGGGAAGCTGAACGTGCACATGAATCCCCCAGGTGAAGGCCACCATCATCAGTGAG
CAGCAGGCCAAGTCTCTGCTTAAAAATGAGAACACCCGCAAXXXXXXXXXXXTGGTGAGATCCTGAACAACCTGCTGC
GTGATGGAGTACCACCAAGCCACGGGCACCCCTCAXX
XX
XX
XX
GGCCGCAGCTGTGTGAGGCGCTCAACATGAAATTCAGGCCGAAGTGACAGAGCAACCGGGCCTGACCAAGGAGA
ACCTCGTGTTCCTGGCGCAGAACTGTTCAACAACAGCAGCAGCCACCTGGAGGACTACAGTGGCCTGTCCGTGT
CCTGGTCCCAGTTCAACAGGGAGAATTTACCAGGACGGAATTACACTTTCTGGCAATGGTTTGACGGTGTGATGG
AAGTGTAAAAAAACATCTCAAGCCTCATTGGAATGATGGGGCCATTTTGGGGTTTGTAAACAAGCAACAGGCC
ATGACCTACTCATTAACAAGCCAGATGGGACCTTCCTCCTGAGATTCACTGACTCAGAAATTGGCGGCATCACCA
TTGCTTGGAAGTTTGATTCTCAGGAAAGAATGTTTGGAACTGATGCCTTTTACCACCAGAGACTTCTCCATT
GGTCCCTAGCCGACCGCTTGGGAGACTTGAATTACCTTATCTACGTGTTTCTGATCGGCCAAAAGATGAAGTAT
ACTCCAAATACTACACACCAGTTCCCTGCGAGTCTGCTACTGCTAAAGCTGTTGATGGATACGTGAAGCCACAGA
TCAAGCAAGTGGTCCCTGAGTTTGTGAACGCATCTGCAGATGCCGGGGCGGCAGCGCCACGTACATGGACCAGG
CCCCCTCCCCAGCTGTGTGTCCCAGGCTCACTATAACATGTACCCACAGAACCTGACTCAGTCTTGACACCG
ATGGGGACTTCGATCTGGAGGACACAATGGACGTAGCGCGGCGTGTGGAGGAGCTCCTGGGCCGGCCAATGGACA
GTCAGTGGATCCCGCACGCACAATCGTGACCCCGCGACCTCTCCATCTTCAGCTTCTTCATCTTCACCAGAGGAA
TCACTCTGTGGATGTTTTAATTCATGAATCGCTTCTTTTGAACAATACTCATAATGTGAAGTGTTAATAC
TAGTTGTGACCTTAGTGTCTGTGATGGTGGCACCAGCGAAGGGAGTGCAGATATGTGTTGTGTGTGTGTGT
GTGTGTGTGTGTGTGTGCGTGTGTCACGTTATGGTGTCTTCCCTCTCACTGTCTGAGAGTTTAGTTGTAGCAG

A

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FIGURE 4850A

GCGGAGCCGGAGGAGCCGCCGCAAAGATGGAGGAGCCGTCGAGGAGGTGCTGCCGCCGCTGCCGCCGCCGCTGCT
GCCGCCGCCGCCGCCGGAAGCCGGAGCTCGAGCCGCAGCGGGGATGCCGTTCTGAGTGCCTGACTGCCTCGCCCCG
AAGGATGGCCTCGGATGGGCATTAGAGGCACGGCGGCCCGGGCTCCCGTCCCGTCCGTCTGTCTGTTATCGTCT
GTCTCTCTTGACATCACCGCAGCTCCACCCCTCCCGTCCCGAGCCCCAACGCCAGCTTCCTGCAGGCCCCAGAGC
CGGCATGAACCTCTCCCAACGAGTCGGATGGGATGTCAGGTGCGGAACCATCCTTGAAAATCCTGCCCGCGGACTTC
TCTGCACAGCATCCCTGTGACAGTGGAGGTGAAGCCGGTGCTGCCAAGAGCCATGCCAGTTCATGGGGGGTGG
GGGTGGAGGCAGCCCCAGCCCTGTGGAGCTACGGGGGGCTCTGGTGGGCTCTGTGGACCCACACTGCGGGAGCA
GCAACTGCAGCAGGAGCTCCTGGCGCTCAAGCAGCAGCAGCAGCTGCAGAAGCAGCTCCTGTTGCTGAGTTCCA
GAAACAGCATGACCACCTGACAAGGCAGCATGAGGTCCAGCTGCAGAAGCACCTCAAGCAGCAGCAGGAGATGCT
GGCAGCCAAGCAGCAGCAGGAGATGCTGGCAGCCAAGCGGCAGCAGGAGCTGGAGCAGCAGCGGCAGCGGGAGCA
GCAGCGGCAGGAAGAGCTGGAGAAGCAGCGGCTGGAGCAGCAGCTGCTCATCCTGCCGAACAAGGAGAAGAGCAA
AGAGAGTGCCATTGCCAGCACTGAGGTAAAGCTGAGGCTCCAGGAATTCCTCTTGTGGAAGTCAAAGGAGCCAC
ACCAGGCGGCCCTCAACCATTCCTCCACAGCACCCCAATGCTGGGGAGCCACCATGCTTCTTTGGACCAGAG
TTCCCTCCCGAGAGCGGCCCTGGGACGCCTCCCTCTACAACTGCCTTTGCCTGGGCCCTACGACAGTCG
AGACGACTTCCCTCCGCAAAACAGCCTCTGAACCCAACCTGAAAGTGCCTTCAAGGCTAAAACAGAAGGTGGC
TGAGCGGAGAAGCAGTCCCTCCTGCGTCGCAAGGATGGGACTGTTATTAGCACCTTTAAGAAGAGAGCTGTTGA
GATCACAGGTGCCGGGCTGGGGCGTCCGTGCTGTAAACAGCGCACCCGGCTCCGGCCCCAGCTCTCCCAACAG
CTCCACAGCACCATCGCTGAGAATGGCTTTACTGGCTCAGTCCCCAACATCCCCACTGAGATGCTCCCTCAGCA
CCGAGCCCTCCCTCTGGACAGCTCCCCAACAGTTCAGCCTCTACACGTCTCCTTCTCTGCCAACATCTCCCT
AGGGCTGCAGGCCACGGTCACTGTACCAACTCACACCTCACTGCCTCCCCGAAGCTGTGACACAGCAGGAGGC
CGAGAGGCAGGCCCTCCAGTCCCTGCGGCAGGGTGGCACGCTGACCGGCAAGTTCATGAGCACATCCTCTATTCC
TGGCTGCCGTGCTGGGCGTGGCACTGGAGGGCGACGGGAGCCCCACGGGCATGCCTCCCTGCTGCAGCATGTGCT
GTTGCTGGAGCAGGCCCGGCAGCAGACCCCTCATTGCTGTGCCACTCCACGGGAGTCCCCACTAGTGACGGG
TGAACGTGTGGCCACCAGCATGCGGACGGTAGGCAAGCTCCCGGGCATCGGCCCTGAGCCGCACTCAGTCCTC
ACCGCTGCCGCAGAGTCCCCAGGCCCTGCAGCAGCTGGTCATGCAACAACAGCACCAGCAGTTCCTGGAGAAGCA
GAAGCAGCAGCAGCTACAGCTGGGCAAGATCCTCACCAAGCAGGGGAGCTGCCAGGCAGCCACCCACCCACCC
TGAGGAGACAGAGGAGGAGCTGACGGAGCAGCAGGAGGTCTGTGCTGGGGGAGGGAGCCCTGACCATGCCCGGAGGA
GGGCTCCACAGAGAGTGAGAGCACACAGGAAGACCTGGAGGAGGAGGACGAGGAAGAGGATGGGGAGGGAGGA
GGATTGCATCCAGGTTAAGGACGAGGAGGGCGAGAGTGGTGCTGAGGAGGGGCGACTTGAGGAGGCCTGGTGCT
TGGATACAAAAAAGTGTCTCAGATGCCAGCCGCTGCAGCCTTTGAGGTGTACCAGGCGCCCTCAGCCTGGC
CACTGTGCCCCACCCAGGCCCTGGGCCGTACCCAGTCCCTCCCTGCTGCCCTGGGGGCATGAAGAGCCCCCAGA
CCAGCCCGTCAAGCACCTCTTCACCACAGGTGTGGTCTACGACACGTTTATGCTAAAGCACCAGTGCATGTGCGG
GAACACACACGTGCACCTGAGCATGCTGGCCGGATCCAGAGCATCTGGTCCCGGCTGCAGGAGACAGGCCTGCT
TAGCAAGTGCGAGCGGATCCGAGGTGCGAAAGCCACGCTAGATGAGATCCAGACAGTGCACCTCTGAATACCACAC
CCTGCTCTATGGGACCAGTCCCTCAACCGGCAGAAAGCTAGACAGCAAGAAGTTGCTCGGCCCATCAGCCAGAA
GATGTATGCTGTGCTGCCCTGTGGGGGCATCGGGGTGGACAGTGACACCGTGTGGAATGAGATGCACCTCCTCCAG
TGCTGTGCGCATGGCAGTGGGCTGCCGTGCTGGAGCTGGCCTTCAAGGTGGCTGCAGGAGAGCTCAAGAATGGATT
TGCCATCATCCGGCCCCCAGGACACCACGCGAGGAATCCACAGCCATGGGATTCTGCTTCTTCAACTCTGTAGC
CATCACCGCAAACTCCTACAGCAGAAGTTGAACGTGGGCAAGGTCTCATCGTGGACTGGGACATTACCATGG
CAATGGCACCCAGCAGGCGTTCTATAATGACCCCTCTGTGCTCTACATCTCTCTGCATCGCTATGACAACGGGAA
CTTCTTTCCAGGCTCTGGGGCTCCTGAAGAGGTTGGTGGAGGACCAGGCGTGGGGTACAATGTGAACGTGGCATG
GACAGGAGGTGTGGACCCCCCATTTGAGACGTGGAGTACCTTACAGCCTTCAGGACAGTGGTGTATGCCATTGTC
CCACGAGTTCTCACCTGATGTGGTCTAGTCTCCGCCGGGTTTGATGCTGTTGAAGGACATCTGTCTCCTCTGGG
TGGCTACTCTGTACCGCCAGATGTTTTGGCCACTTGACCAGGCAGCTGATGACCCTGGCAGGGGGCCGGGTGGT
GCTGGCCCTGGAGGGAGGCCATGACTTGACCGCCATCTGTGATGCCTCTGAGGCTTGTGTCTCGGCTCTGCTCAG
TGTAGAGCTGCAGCCCTTGATGAGGCAGTCTTGACGAAAAGCCCAACATCAACGCAGTGGCCACGCTAGAGAA
AGTCATCGAGATCCAGAGCAAACTGGAGCTGTGTGAGAAGTTGCCGCTGGTCTGGGCCGGTCCCTGCGAGA
GGCCAAGCAGGTGAGACCGAGGAGGCCGAGACTGTGAGCGCCATGGCCTTGCTGTGGTGGGGCCGAGCAGGC

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FIGURE 4850B

CCAGGCTGCGGCAGCCCGGGAACACAGCCCCAGGCCGGCAGAGGAGCCCATGGAGCAGGAGCCTGCCCTGTGACG
CCCCGGCCCCCATCCCTCTGGGCTTCACCATTGTGATTTTGTTATTTTTTCTATTAAAAACAAAAAGTCACACA
TTC

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FIGURE 4851

MNSPNESDGMMSGREPSLEILPRTSLHSIPVTVEVKPVLPRAMPSSMGGGGGGSPSPVELRGALVGSVDPTLREQQ
LQQELLALKQQQQLQKQLLFAEFQKQHDHLTRQHEVQLQKHLKQQQEMLAAKQQQEMLAAKRQQELEQQRQREQQ
RQEELEKQRLEQQLLILRNKEKSKEIASTEVKLRLQEFLLSKSKEPTPGGLNHSPLQHPKWCWAHSHASLDQSS
PPQSGPPGTPPSYKLPPLPGPYDSRDDFPLRKTASEPNLKVRSRLKQKVAERRSSPLLRRKDGTVIISTFKKRAVEI
TGAGPGASSVCNSAPGSGPSSPNSSHSTIAENGFTGSVPNIPTMLPQHRALPLDSSPNQFSLYTSPSLPNISLG
LQATVTVTNSHLTASPKLSTQQEAERQALQSLRQGGTLTGKFMSTSSIPGCLLGVALEGDGSPHGHASLLQHVLL
LEQARQQSTLIAVPLHGQSPLVTGERVATSMRTVGKLPRLRPLSRTQSSPLPQSPQALQQLVMQQQHQQFLEKQK
QQQLQLGKILTKTGELPRQPTTHPEETEEELTEQQEVLLGEGALTMPREGSTESESTQEDLEEEDEEEDGEEED
CIQVKDEEGESGAEEGPDLEEPGAGYKKLFSDAQPLQPLQVYQAPLSLATVPHQALGRTQSSPAAPGGMKSPPDQ
PVKHLFTTGVVYDTFMLKHQCMCGNTHVHPEHAGRIQSIWSRLQETGLLSKCERIRGRKATLDEIQTIVHSEYHTL
LYGTSPLNRQKLDKLLGPISQKMYAVLPCGGIGVSDTVWNEMHSSSAVRMAVGCLLELAFKVAAGELKNGFA
IIRPPGHAAEESTAMGFCFFNSVAITAKLLQKLNVGKVLIVDWDIHHGNGTQQAFYNDPSVLYISLHRYDNGNF
FPGSGAPEEVGGGPGVGYNVNAWTGGVDPPIGDVEYLTAFTVVMPIAHEFSPDVVLVSAGFDAVEGHLSPGG
YSVTARCFGHLTRQLMTLAGGRVLALEGGHDLTAICDASEACVSALLSVELQPLDEAVLQQKPNINAVATLEKV
IEIQSKHWSCVQKFAAGLGRSLREAQAGETEEAETVSAMALLSVGAEQAAAAAREHSPRAEEPMEQEPAL

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FIGURE 4852

CGGAGGAGAGCGCAGGAGGAAACAGTACCGGCTGGAGGCCGGTCTTGCAGGAGCGGGGGACTGCTGGGGGCGGGG
CTTGGTGGTGACTGCTGGCGGGGCGGGGCCTGGGGCTCAGAGGGGTGGGCTTTGGAGATCAGAGGGTCGACGCTG
CTTCGTTGCCTGGACTCTGGTTTCCGCCCTGGAGCAAGCCGGGGCCTGGTCGGCAGCTGGGCCGCCATGGAGTCC
ACGCTGGGCGCGGGCATCGTGATAGCCGAGGCGCTACAGAACCAGCTAGCCTGGCTGGAGAACGTGTGGCTCTGG
ATCACCTTTCTGGGCGATCCCAAGATCCTCTTTCTGTTCTACTTCCCCGCGGCCCTACTACGCCTCCCGCCGTGTG
GGCATCGCGGTGCTCTGGATCAGCCTCATCACCAGTGGCTCAACCTCATCTTCAAGTGGTTTCTTTTTGGAGAC
AGGCCCTTTTGGTGGGTCCATGAGTCTGGTTACTACAGCCAGGCTCCAGCCCAGGTTACCCAGTTCCCCTCTTCT
TGTGAGACTGGTCCAGGCAGCCCTTCTGGACACTGCATGATCACAGGAGCAGCCCTCTGGCCCATAAATGACGGCC
CTGTCTTCGCAGGTGGCCACTCGGGCCCGCAGCCGCTGGGTAAGGGTGATGCCTAGCCTGGCTTATTGCACCTTC
CTTTTGGCGGTTGGCTTGTGCGGAATCTTCATCTTAGCACATTTCCCTCACCAGGTGCTGGCTGGCCTAATAACT
GGCGCTGTCTGGGCTGGCTGATGACTCCCCGAGTGCCTATGGAGCGGGAGCTAAGCTTCTATGGGTTGACTGCA
CTGGCCCTCATGCTAGGCACCAGCCTCATCTATTGGACCCCTCTTTACACTGGGCCTGGATCTTTCTTGGTCCATC
AGCCTAGCCTTCAAGTGGTGTGAGCGGCCTGAGTGGATACACGTGGATAGCCGGCCCTTTGCCTCCCTGAGCCGT
GACTCAGGGGCTGCCCTGGGCCTGGGCATTGCCTTGCACTCTCCCTGCTATGCCCAGGTGCGTCGGGCACAGCTG
GGAAATGGCCAGAAGATAGCCTGCCTTGTGCTGGCCATGGGGCTGCTGGGCCCCCTGGACTGGCTGGGCCACCCC
CCTCAGATCAGCCTCTTCTACATTTTCAATTTCTCAAGTACACCCTCTGGCCATGCCTAGTCTTGGCCCTCGTG
CCCTGGGCAGTGCACATGTTCAAGTGGCCAGGAAGCACCGCCCATCCACTCTTCTGACTTCTTGTGTGCCTCCCT
TTCTTTTCCCTCCCAAAAGCCAACACTCTGTGACCACCACACTCCAGGAGGCAGCCCCATCCCCTTCCAGCCCC
TAAGTAGGCCCTCCCCTCCCTAAATCTGCTTCCGCACCACCTGGTCTTAGCCCCAAAGATGGGCCTTCTCTCTCC
CAGATAAGTTGGTCTCCCTCTGCCTTTCTCTCAAGCCCCAAAGAGCAAAGGCAACAGCAAGACCAGCGGGTT
CTTGCAACACTGTGAGGGGCGAGCCAGGGCGGGCCCAATAAAGCCCTTGAATACTT

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FIGURE 4853

MESTLGAGIVIAEALQNQLAWLENVWLWITFLGDPKILFLFYFPAAYYASRRVGI AVLWISLITEWLNLI FKWFL
FGDRPFWWVHESGYYSQAPAVHQFPSSCETGPGSPSGHCMITGAALWPIMTALSSQVATRARSRWVRVMP SLAY
CTFLLAVGLSRIFILAHFPHQVLAGLITGAVLGWLMTPRVPMERELSFYGLTALALMLGTSLIYWTLFTLGLDLS
WSISLAFKWCERPEWIVHDSRPFASLSRDSGAALGLGIALHSPCYAQRRAQLGNGQKIACLVLAMGLLGPLDWL
GHPPQISLFYIFNFKYTLWPCLVLALVPWAVHMFSAQEAPP IHSS

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FIGURE 4854

GGCACGAGGCCGACGCGGACTGCCCTTTCCCAAGATGCGCGTCGAAGATAGGTTTCGAGACGGTGGATGTTGCAGCT
GATCATGCAGTTGGGTTCGGTGCTGCTCACACGCTGCCCCCTTTGGGGCTGCTTCAGCCAGCTCATGCTGTACGC
TGAGAGGGCTGAGGCACGCCGGAAGCCCGACATCCCAAGTGCCTTACCTGTATTTTCGACATGGGGGCAGCCGTGCT
GTGCGCTAGTTTCATGTCCCTTTGGCGTGAAGCGGCGCTGGTTTCGCGCTGGGGGCCGCACTCCAATTGGCCATTAG
CACCTACGCCCGCTACATCGGGGGCTACGTCCACTACGGGGACTGGCTGAAGGTCCGTATGTACTCGCGCACAGT
TGCCATCATCGGCGGCTTTCTTGTGTGGCCAGCGGTGCTGGGGAGCTGTACCGCCGGAACCTCGCAGCCGCTC
CCTGCAGTCCACCGGCCAGGTGTTCTGGGTATCTACCTCATCTGTGTGGCCTACTCACTGCAGCACAGCAAGGA
GGACCGGCTGGCGTATCTGAACCATCTCCAGGAGGGGAGCTGATGATCCAGCTGTTCTTCGTGCTGTATGGCAT
CCTGGCCCTGGCCCTTTCTGTGAGGCTACTACGTGACCCCTCGCTGCCCAGATCCTGGCTGTACTGCTGCCCCCTGT
CATGCTGCTCATTGATGGCAATGTTGCTTACTGGCACAACACGCGGCGTGTGAGTTCTGGAACAGATGAAGCT
CCTTGGAGAGAGTGTGGGCATCTTCGGAAGTGTGTATCTGCGCCACTGATGGCTGAGTTTTATGGCAAGAGGC
TGAGATGGGCACAGGGAGCCACTGAGGGTACCCCTGCCTTCCTCCTTGCTGGCCCAGCTGCTGTTTATTTATGCT
TTTTGGTCTGTTTGTGTTGATCTTTTGCTTTTAAATTTGTTTTTGCAGTTAAGAGGCAGCTCATTTGTCCAAA
TTTCTGGGCTCAGCGCTTGGGAGGGCAGGAGCCCTGGCACTAATGCTGTACAGGTTTTTTTCTGTTAGGAGAGC
TGAGGCCAGCTGCCCAGTGTCTCCTGTCCCTGAGAAGGGAGTATGGCAGGGCTGGGATGCGGCTACTGAGAGT
GGGAGAGTGGGAGACAGAGGAAGGAAGATGGAGATTGGAAGTGAGCAAAATGTGAAAAATTCCTCTTTGAACCTGG
CAGATGCAGCTAGGCTCTGCAGTGTGTTGGAGACTGTGAGAGGGAGTGTGTGTGTTGACACATGTGGATCAGG
CCCAGGAAGGGCACAGGGGCTGAGCACTACAGAAATCACATGGGTTCAGGGTATGCCAGGGGCAGAAACAGTA
CCGGCTCTCTGCTCACTCACCTTGAGAGTAGAGCAGACCCTGTTCTGCTCTGGGCTGTGAAGGGGTGGAGCAGGCA
GTGGCCAGCTTTGCCCTTCCTGCTGTCTCTGTTTCTAGCTCCATGGTTGGCCTGGTGGGGGTGGAGTTCCCTCCC
AAACACCAGACCACACAGTCTCCAAAAATAAACATTTTATATAGACAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 4855

MASKIGSRRWMLQLIMQLGSVLLTRCPFWGCFSQLMLYAERAEARRKPDIPVPYLYFDMGAAVLCASFMSFGVKR
RWFALGAALQLAISTYAAYIGGYVHYGDWLKVRMYSTRVAIIGGFLVLASGAGELYRRKPRSRSLQSTGQVFLGI
YLICVAYSLQHSKEDRLAYLNHLPGGELMIQLFFVLYGILALAFLSGYYVTLAAQILAVLLFPVMLLIDGNVAYW
HNTRRVEFWNQMKLLGESVGIFGTAVILATDG

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FIGURE 4856

AAAGGACCGAGGCGTGCAGCGGACAGCAGATGGATCCCGCGGCCAGCAGCTGCATGAGGAGCCTCCAGCCCCCAG
CCCCTGTCTGGGGCTGCCTTCGAAACCCCCACTCGGAAGGCAATGGGGCCTCAGGGCTACCCCACTACCCGCCCA
CCCCGTTCTCCTTCCACCAGAAACCAGACTTCCTGGCGACAGCGACGGCAGCGTACCCTGACTTCTCAGCCTCCT
GCCTGGCAGCCACCCACACAGCCTGCCCCAGGAGGAGCACATCTTCACTGAGCAGCACCCCGCTTTCCACAGT
CCCCAACTGGCACTTCCCTGTCTCAGACGCCCGGCGCAGGCCCACTCAGGCCCGGAGGGGGTTCCAAGGAAA
TGGGGACCAGCAGCCTGGGGCTGGTGGACACCACAGGAGGCCAGGCGATGACTACGGGGTGCTTGGGAGCACTG
CCAATGAGACAGAGAAGAAATCATCCAGGCGGAGAAAGGAGAGTTTCAACAACCAGGAGAACAGAGGGAAGCCGG
AGGGCAGCAGCAAAGCCCGCAAGGAGAGGACGGCCTTACCAAGGAGCAGCTGCCAGAGCTGGAGGCAGAGTTTG
CCCATCATAACTACCTGACTCGGCTCCGCAGATATGAGATTGCGGTAAACCTGGACCTCTCTGAGCGCCAGGTCA
AAGTGTGGTTCCAGAACCAGGATGAAGTGAAGCGTGTGAAGGGAGGTCAGCCCATCTCCCCCAATGGGCAGG
ACCTGAGGATGGGGACTCCACAGCCTCTCCAAGTTCAGAGTGAGATTCTGCATGGAGGAAAAATGACTAAGGAC
TGAGCCCCCTACCCAATACCCCCACCCCAATCCACCTTACCCCTCTTCCCTTCCCCAGCCAGGGCAGCCTCTCC
ACATCTTTCCCTGACTCTTGGATATGAACTGCCCAGCATTCTTGGGAGTCTTAGGATTTTCTAGGAAGTTCTGT
CCAGCCTCTTAGCAGCCTCTTCCCTAGGGCCTTGTCTCCCACTCTCATGGAATCAGACAGAGATCCTACCGGG
CCGGATGAATCTGGAAACAGCTTCAGAGATACTGCTTCTCAGCGTCTCTTGGCTGCCACCCATGCCTCCTCCTAC
CGCTGTTCTCCTAGGTGAGCCAGGCCCTCCTCTGGTCTGGACACCACCTGGCCTGGTGGGAGAGGAGCTTTGGAA
CCAGCTGGCGACTCGGAAAGTAAATGCTTCAAAGGAAGGAAATGACAGAGACACACGCCCTTGCCACCTTCTCT
CTGTAGGCTGCACATCTGAGGCTTTGGGGCCCCCTTAGTTGTCCCGAAACCCCAAGAAAAATCAGAATGAGGAGAG
TCAAGGACAGCAACTCAGCTGCTGCAAGCCAGAAACACATCCCTGTCTCCAAATTTGTTGGCTAAGTGGAGACAC
TTCTGAGAACTGACTAGAGAAGACAGAAAAATAGCCCGATGTAGGTTTCGGTGTCCCCATATAGGCCCGTCCACA
CAGGCTTGACTGGGTGGACAAGAATGAACCCATGACAGCACCTGCTGCTTCAAAATCAAAATCAATTTAGGGATA
CAGCAGGGGCTGTTGGGCTGTGCTCCAGAGAAAAGGAGCAGCTACTCCTTTTAAATCCACGATTTCTGGATTGAA
AACCTGTCCAGATGCTGAGTTGTTGGGCTGAACAACCTAGGAGCTGAAAACAACGTAGAGGCTGGAAAGTGTCCCC
TGCATTCTGGAGGGGAGGGGAGATAATAAGGAGGGCTGCTGGGTGAGGGCCTGGAGATGTGGAACCTGGAGTGG
AAGGTTCTCCAGTGACAGTGTCTGTGACTGCAAAAGGGGACAAGAAAAATCCCTCTTCTCCTCATGGGATGGATTT
AAGCTCTGTGTGTGTTCTACAAATGCTGTTATTGTGGGAGGAAATGCTAGGTTTTTGTGTGTGGACTGCCCAG
ACCTCAGCCAGGTCTTCTGGAGATGACATTTGAGGACTGATGGCCAAAGAGCATGGGGGACTGAAGCCCTGGCTG
CCTCAGCGCTCTGTCTCCCAACACCAGCTGGTGTTCAGAGGGAGGTCAACGTGAGTTTGGATCTCTTGTACGCA
GATGTAATCATTACATGTAAAAATAACCCACCTCCCCACCCCAAAAAGGGCAAGAGCTGTGGAATGATTGC
CAAATGAGATGGCTGGTTAGAGCATGATTTTTTCTAAAGCATACTTCATATATTTTCTTAAGATTACATCAAGCT
AATTGTGCGAGCTCAATTCACTTTGTAAGAAAACCTCTCGGAGAAAATAAATCAATAAAAAGC

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FIGURE 4857

GAGCGGCCCCGAGGAGGACGCAGCGGCGCTGGAGCTTTCGTCGGACGAGGCGGTGGAGGTTGAGGAGGTTATTGAG
GAGTCCC CGCAGAGCGTATCAAGCGCAGACACTGCGGCGCGTGGACGACTTCAAGAAGGCCTTCTCCAAGGAGA
AGATGGAGAAGACCAAGGTGCGTACCCGCGAGAACCTGGAGAAGACGCGCCTCAAGACCAAGGAAAACCTGGAGA
AGACGCGGCACACCCTGGAGAAGCGCATGAACAAGCTGGGCGACGCGCCTGGTGCCCGCCGAGCGGCGCGAGAAAC
TGAAGACGTCGCGGGACAAGTTGCGCAAATCCTTCACGCCCGACCACGTGGTGACGCGCGCTCCAAGACCGCGG
TCTACAAGGTGCCACCCTTCACCTTCCACGTCAAGAAGATCCGCGAGGGGCCAGGTGGAAGTGCTCAAGGCCACCG
AGATGGTGGAGGTGGGCGCCGACGACGACGAGGGCGGCGGAGCGCGGGGAGGCCGCGACCTGCGGCGCGGGAGC
AGCCCCGACGTGCACGCGCTGCTGGAGATCACCGAGGAGTCGGACGCCGTGCTGGTGGACAAGAGCGACAGCGAC
TGAGCCGCCCCCGCTGCCACCCACCCATTCTCGCTCCTTCCGAACCTTCCTCTTCGCAATTCTCTCTCGGCTCG
AGCTGGCTGAGATTTTCTAAATTGAAAACACGCCCCCTCCCCACACCTCCAGGAACCTCCACTCCAGTCTTAG
AGCTGTTAGGACCCGATGGGGAGGCAGCCCCGCGAGTGGACAGCCCCCGCTTGGACACAGTCCGAGTGAATGGG
AAGGGAATGGTCAATCCCTGTCTGGTTGTCCAAGTCGGGATCTCAGAGGAAATTGCAGTGATTCCACGGTTAGG
CCCCCTGGGGGGGCTGCCCTTCCCTCAGCCTCTCCCCACACCACCCACCCAGCTGCTGTCAATCCGCTCACTGA
GCTCTTCTTCATTCTCACCTGATCCCTGGGGGACTCAAAGCCAAAACCTGCCCAAAGAGGAAAGATTGAATCCTA
AAGGGGATCCTTGCCCCATGGGAGGCCCCCTACTAGAAGGACGTGAAAGCAGCTTTTGGGGGAAACTGAGGCAG
TGGGGAAGACAGAGCAGAAATGAGCCCTCACCTGGCTGGGGGTCCAGCACAGGCTGTATCTGCAGAGGGTCCAG
AGGAACGCTGGAGCCAAGAGAAGCCCTGGGAAGGAGGGGTGGGGAACGACATGCATGTGAGGGATGGCACACTGA
TGTGTTTATGCACCTGTACACAGGAGCGCATGGCCATGGCTTTGGAAAGGAGAATGGAAAAATAGAAGAAGGTGCG
GCCGGGCTTGGTGGCTTATGCCGTAAACCCAGCACTTTGGGAGGCCGAGGTGGGCGGATCACCTGAGGTGAGGA
GTTCGGGACCAGCTGGCAAACACCCATCTCTACTAAGCGAAAAACCATCTCTACTAAAATTACAAAAATTAGC
TGGGCATGATTGCGCATGCCGTAAATCCAGCTACTTTGGAGGCTGAGGTGGGGAGAATTGCTTGAACCTGGGAG
GTGGAGGTTGCAGTGAGCCAAGGTGCGACACTGCACTCCAGCCTGGGTGACAGAGTGAGACTCCATCTCAACAG
AAGGAAAAAAGGAAAAATAGGAGAAGGTGGAATGGGTGAAGAGAGAAGTCCCCTCACTAGCTGCATGAGAAAT
CTATCTTACTGTGGTTCTCCATGGGCAGCAGGACCATTTTTCAGAATCAAGAGGGAGGACAGTGTGAGAAGGCGA
TGATCCAAAGAAGACAGAGAGGTCAGCCCCACCCGATCCCTCAAATGGGCTCTTGGAGGCACCCCAAGGGGAGC
CCATTTCTCAAAGTCCAGAAAATTAGGGTCCCAGAAGGGGGCAGCAGCAGGCTGGGAGTTAGGAGGGAGAGCAGG
GTGCCGGCCCTGCCACCAAGTTGAGAGCTGGAGGGGAGGTGGGGAGAGAACATCACAGAGCAGCCAGCCCTGGTT
CACTCCTGGCAGTTTCTTCTCAAGCTCCTTCCCTAGGAGCATGGTGGCACGTGCCTGTGGTCTCAGCTACTTGGG
AGGCTGAGGCGGGGAGGATCGCCAGAGCCCCAGGAGTTTGGGCTGCAGTGAGCTATGAGGGTGCCTCTGTGCTCCA
TCCTAGGCAACAGAGTGAGACGCTGTTTAAAAAGGAAAAAATCCTTCCCTAGAGCTAGTATCCTAAAGCTGCAGA
GCTAGCCCAGACCTCATTGGTTTCTTGTCTTGGGGTGCTTTTCTGAATCTTTGGGGGTGAAGGGAGTGTTCG
TCCCAGTCCAGAGGCCTGATTCTGTTCGGACTGGGTTCTCAAGACACGACCAGGTTCTCAAGACACGAGTCCCCT
TGTTCTCCCCATTAAAGGGGGTTTGTGAGAAGCAAGAACAGCCCCCTCTCCCAAGTACAGCCTGAAGGGAGGCC
CCGAGAGCTTCTCCTTCCCCCACCTGCTCCTTACCTTCTCTGCCCTGCTTTTTAGAACTGCAGTTCATTGTTT
TAAGGGATTGGGGGAGGGAGCCTGGGGACACAAACCTTTTATACAATACAAAGCTTTGCTTTTTTTTTTTTTTTC
TTCCTTTTCCCTTTCTCGGTTCTCTTCTCTCTCTGAATGGCTGAAGACCCCTCTGCCGAGGGAGGTTGGGGATT
GTGGGACAAGGTCCCTTGGTGCTGATGGCCTGAAGGGGCTGAGCTGTGGGCAGATGCAGTTTCTGTGGGCTTG
GGGAACCTCTCACGTTGCTGTGTCCTGGTGAGCAGCCCGACCAATAAACCTGCTTTTCT

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FIGURE 4858

MEKTKVRTRENLEKTRLKTKENLEKTRHTLEKRMNKLGTRLVPAERREKLKTSRDKLRKSFTPDHVYARSKTAV
YKVPFFTFHVKKIREGQVEVLKATEMVEVGADDDEGGGARGGRRPAAREQPRRARAAGDHRGVGRRAGGQERQRL
SRPRCHPPHSSLLPNFLFRILSRLELAEIFLN

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FIGURE 4859

ATGGCCGTATTCCGGTCGGGTCTCCTGGTGCTGACGACGCCGCTGGCCTCCCTAGCCCCCTCGCCTGGCCTCCATC
CTGACCTCGGCGGGCCCGGCTGGTGAATCACACACTCTATGTTACCTGCAGCCGGGCATGAGCCTGGAGGGCCCG
GCTCAGCCCCAGTACAGCCCCGTGCAGGCCACGTTTGAGGTTCTTGATTTTCATCACGCACCTCTATGCTGGCGCC
GACGTCCACAGGCACTTGGACGTGAGAATCCTACTGACCAATATCCGAACCAAGAGCACCTTTCTCCCTCCCCTG
CCCACCTCAGTCCAGAATCTCGCCACCCGCCAGAAGTCGTGTTGACAGATTTCCAGACCCTGGATGGAAGCCAG
TACAACCCGGTCAAACAGCAGCTAGTGC GTTACGCCACCAGCTGTTACAGCTGTTGTCCGCGACTGGCCTCGGTG
CTGCTATACTCCGATTATGGGATAGGAGAAGTGCCCGTGGAGCCCCCTGGATGTCCCCTTACCCTCCACGATCAGG
CCAGCTTCCCCCGTGGCCGGGTCTCCAAAGCAGCCGGTGC GTGGCTACTACCGTGGCGCTGTGCGTGGCACGTTT
GACCGCCTGCACAACGCCCCACAAGGTGTTGCTCAGTGTGCGGTGCATCCTGGCCCAGGAGCAGCTTGTGGTGGGA
GTAGCAGACAAAGATCTGTTGAAGAGCAAGTTGCTCCCTGAGCTGCTCCAACCTTATACAGAACGTGTGGAACAT
CTGAGTGAATTCTTGGTGGACATCAAGCCCTCCTTGACTTTTGATGTCATCCCCCTGCTGGACCCCTATGGGCCC
GCTGGCTCTGACCCCTCCCTGGAGTTCTTGGTGGTCAGCGAGGAGACCTATCGTGGGGGGATGGCCATCAACCGC
TTCCGCTTGAGAATGACCTGGAGGAACCTTGCTTTGTACAGATCCAGCTGCTGAAGGACCTCAGACATACGGAG
AATGAAGAGGACAAAGTCAGCTCCTCCAGCTTCCGCCAGCGAATGTTGGGGAACCTGCTTCGGCCTCCATATGAA
AGGCCAGAGCTCCCCACATGTCTCTATGTAATTGGGCTGACTGGCATCAGTGGCTCTGGGAAGAGCTCAATAGCT
CAGCGACTGAAGGGCCTGGGGCGTTTGTCAATTGACAGTGACCACCTGGGTGATCGGGCCTATGCCCCAGGTGGC
CCTGCCTACCAGCCTGTGGTGGAGGCCCTTGGGAACAGATATTCTCCATAAAGATGGCATCATCAACAGGAAGGTC
CTAGGCAGCCGGGTGTTTGGGAATAAGAAGCAGCTGAAGATACTCACGGACATTATGTGGCCAATTATCGCAAAG
CTGGCCCCGAGAGGAGATGGATCGGGCTGTGGCTGAGGGAAAGCGTGTGTGTGTGATTGATGCCGCTGTGTTGCTT
GAAGCCGGCTGGCAGAACCTGGTCCATGAGGTGTGGACTGCTGTGATCCAGAGACTGAGGCTGTAAGACGCATT
GTGGAGAGGGATGGCCTCAGTGAAGCCCGGCTCAAAGCCGGCTGCAGAGCCAGATGAGCGGGCAGCAGCTTGTG
GAACAGAGCCACGTGGTGTCTAGCACCTTGTGGGAGCCGCATATCACCCAACGCCAGGTGGAGAAAGCCTGGGCC
CTCTTGCAAGCGCATTCCCAAGACTCATCAGGCCCTCGACTGA

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FIGURE 4860

MAVFRSGLLVLTTPLASLAPRLASILTSAARLVNHTLYVHLQPGMSLEGPAQPQSSPVQATFEVLDFITHLYAGA
DVHRHLDVRILLTNIRTKSTFLPEPLPTSVQNLAHPEEVVLTDFQTLDGSEQYNPVKQQLVRYATSCYSCCPRLASV
LLYSDYGIGEVPEPLDVPLPSTIRPASPVAGSPKQPVRGYYRGAVGGTFDRLHNAHKVLLSVACILAEQLVVG
VADKDLLKSKLLPELLQPYTERVEHLSEFLVDIKPSLTDFDVIPLLDPYGPAGSDPSLEFLVVSEETYRGGMAINR
FRIENDLEELALYQIQLLKDLRHTENEEDKVSSSSFRQRMGLNLLRPPYERPELPTCLYVIGLTGISGSGKSSIA
QRLKGLGAFVIDSDHLGHRAYAPGGPAYQPVVEAFGTDILHKDGIINRKVLGSRVFGNKKQLKILTDIMWPIIAK
LAREEMDRAVAEGKRVCVIDAAVLLEAGWQNLVHEVWTAVIPETEAARRIVERDGLSEAAAQSRLQSMSGQQLV
EQSHVVLSTLWEPHITQRQVEKAWALLQKRIPKTHQALD

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FIGURE 4861

CCTCGCCGCAGGGGGCCCGCCCGCTGGCCCGTTTCCGGTCCGGTGGGTACAAGATGACGGAGCCGGGCGCCTCTC
CCGAGGACCCCTTGGGTCAAGGCAAGCCCCGTGGGCGCGCACGCCGGCGAGGGGAGGGCGGGTCGGGCTCGTGAC
GTAGGGGGGCGCGAAGACGAGGGGCTTCCCTCCTGTCCCCAAAGTCCCCACGCTCTCCGTGCCCCGGGGCTGCA
GAGAAGACAGCTCTACCCCGCGTGTGCCAAGGTGGAGTATGCCTACAGCGACAACAGCCTGGACCCCGGGCTTT
TTGTAGAAAGCACCCGCAAGGGGAGTGTAGTGTCCAGAGCTAATAGCATCGGTTCCACCAGTGCTCTTCTGTCC
CCAACACAGATGATGAGGACAGTGATTACCACCAGGAGGCCATCAAGAGAGGCTATGATGACCTTCAGACCATCGTCCCCA
CTTGCCAGCAGCAGGACTTCTCCATTGGCTCCCAAAGCTCAGCAAAGCCATCGTTCTACAAAAGACCATTGACT
ACATTCACTTTTTTGACAAGGAGAAGAAAAGCAGGAGGAGGAGGTGTCCACGTTACGCAAGGATGTACCCGCC
TAAAGATCATGAAAGTGAACATATGAGCAGATTGTGAAGGCACACCAGGACAACCCCCATGAAGGGGAGGACCAGG
TCTCTGACCAGGTCAAGTTCAACGTGTTTCAAGGCATCATGGATTCCCTGTTCCAGTCCCTCAATGCCTCCATCT
CAGTGGCCAGCTTCCAGGAGCTGTCAGCGTGTGTCTCAGCTGGATCGAGGAGCACTGTAAGCCTCAGACCCTGC
GGGAGATTGTGATTGGCGTCCCTGCACCAATTGAAAAACCAGCTTTACTGACCGGTTCTTGGAACCTGGAGAACA
GCCAACAAGAGGCCCTTGAATCTCTACGTGGCCACTGAACGTGTTGGGCCCCGGGAGACTGGACTACAACACCTCAC
ACTGGTCAGCTGGTTTTCTACTTGGTGTGTTGGTTTTTCCAGCCCCATTTTATCTTCAGCGGAGCCGCGGTGTTG
TTTTGTGAAAGCTTCTGATTAAATTTATTATATTGACGATAAAACTCAAACCTACCCAGCCTTCCCCCACTCCAT
GGAAGTCTTGGGATGGGCGTCTGCTCTGGACACCCCAAAGAGCTCCTGCCCTCTCAGCCCTTTATTCAAGCCTC
AGATTTCTGCTCATGATCTACATAGATTTGGAAACTGTTTTCTCTGTTTTGGTCTCTTGGGCAACATTTTTGGC
CCAAGTTTGGGCAACATTTGGCCCAAGTTTGGGCATTTTGGCAGTAGCTGTATGGGAGAAAAAGAGTAAGAGGAA
ATATTCCCACAGCCATGAAGGGTGAAAGGGCACCTTGTGCCTAGACTAGGGCTGCCTGGTCAGTCCCAGGTGAGG
CCAAGGGCTTTCTGGCCATCTCAGGGAGGGGCCACCAGGTTCCCTCCCCCTACCCCCATATTCCATCACCTTCCTCC
TCTGCTCTGGGTGGTAAGGGAAGCCCTCCCGGTTCCACAGGCTATGATGCTGCATGGCAGAGGCAGGTATAACA
CAGCACTACATATTGGAATTTTTTATTTTTCTAAATACCAATGCAGTTTTGCTACGGTTACAATTTTGAAATAT
TAACTGAGCCTCAAAATCACCCCTTCTGTCAAGCATATCTTGGCCTCTCCCATGTCTCAGTGTTCCTGCATTTT
TCCCAGGACTTGGGGGTGGGGTGAAAAGCGTACAAAAGATACTTAAAAGGGCTCCTGGGGTACACAAGCCCAGCA
GGTCCTGAGTGAAGCCGTGGGCCCTCCAAATGCTCGTTTTATAGCAACCTCTCTCTACCCCTAGTTCTCCAAATTC
ACTTCTGCCTTCCCTCAGGTTTGATATCTGGCAGGTTTGACTATCCAGAGGAAATTAAATATTTTTATATAAAATT
AAATTATAATAAATATTGCCAAATGCTTTCCTTTAGCATTGTTCCAAGTCTAAATGTTAACCTCAAGCTACTGCA
ATTTAGACAATGAAATGGGCTGGGTCTACCCCAAGCCACCAGCCCTCATCTCTCTACCCAGTGCTCTGGTTTAT
GCTTGTCTCCTGACTGCTCTGCTTAAAGGTGAAAGTAGCAGGAACAACAACAAAGCCAACCAAAAACAAGGTAG
CCAGTGCAAGACATCTCACTCTTCTGACATCCTGCAGTCCCCACCAGTCCCTGACCGTGGGCCCTCAGGGGTCTG
GGAGTGTGACGTTGTAATCTTCATCCGTCTCTATCCCAACTTCCTCCTGTGAGACAGGGAGACAAGTGAATGAGA
TGTCACCAGGATAAGACCACAGGGAAGCAAAGAAGGAAGAGAGCTCCACTTACAAAGAACTGCTTCTTGTCTTTG
GGGTATCCTTCAAGTATTGCATCAGACAGCTCTGTAGCCTGACAAGAAATAAAACCACCCGTTTTTCAGATGGGCA
GCACTGGGCACTGCCTGTCAGTTTATGATATTGTGT

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FIGURE 4862

MTEPGASPEDPWVKASPVGAHAGEGRAGRARRRGAGRRGASLLSPKSPTLSVFRGCREDSHPACAKVEYAYSD
NSLDPGLFVESTRKGSVVSRRANSIGSTSASSVPNTDDESDYHQEAYKESYKDRRRRAHTQAEQKRDAIKRGYD
DLQTIVPTCQQQDFSIGSQKLSKAIVLQKTIDYIQFLHKEKKKQEEEVSTLRKDV TALKIMKVNYEQIVKAHQDN
PHEGEDQVSDQVKFNVFQGIMDSLFQSFNASISVASFQELSACVFSWIEEHCKPQTLREIVIGVLHQLKNQLY

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FIGURE 4863

CAACTACAACGTCCGGCTTTCTGAGTTGGGTGGCGGGAAAGGCGATGAGTAAAGGCCGGGCAGAAGCTGCGGTAG
CCGCCGGGATCCTCCTGAGGTACCTGCAGGAGCAGAACCGGCCCTACAGCTCCCAGGATGTGTTCCGGGAACCTAC
AGCGGGAACACGGACTGGGCAAGGCGGTGGTGGTGAAGACGCTGGAGCAGCTGGCGCAACAAGGCAAGATCAAAG
AGAAGATGTACGGCAAGCAGAAGATCTATTTTGGCGATCAGGACCAGTTTGACATGGTGAGTGATGCTGACCTTC
AAGTCTTAGATGGCAAAATCGTGGCCCTCACTGCTAAGGTGCAGAGCTTGACAGCAGAGCTGCCGCTACATGGAGG
CTGAGCTCAAGGAATTATCTAGTGGCCTGACCACACCAGAGATGCAGAAAGAAATCCAGGAGTTAAAGAAGGAAT
GCGCTGGCTACAGAGAGAGATTGAAGAACATTAAAGCAGCTACCAATCATGTGACTCCAGAAGAGAAAGAGCAGG
TGTACAGAGAGAGGCAGAAGTACTGTAAGGAGTGGAGGAAGAGGAAGAGGATGGCTACAGAGCTGTCTGATGCAA
TACTTGAAGGATACCCCAAGAGCAAGAAGCAGTTCTTTGAGGAAGTTGGGATAGAGACGGATGAAGATTACAACG
TCACACTCCCAGACCCCTGAGGGGGCCACGGTCAGGACTGGTGGGGACTGCAGGATGTCAGAAGAGTGAGATGTC
TTGCACTGGCTACCTTGTTTTTGGTTGGCTTTTGTGTTGTTTCCTGCTACTTTCACCTTTAAGCAGAGCAGTCAG
GAGACAAGCATAAACCAGAGCACTGGGTAGAGAGGATGAGGGCTGGTGGCTGGGGGTAGACCCAGCCCATTTTCAT
TGTCTAAATTGCAGTAGCTTGAGGTTAACATTTAGACTTGAACAATGCTAAAGGAAAGCATTGGCAATATTTA
TTATAATTTAATTTTATATAAAAAATATTTAATTTCTCTGGATAGTCAAACCTGCCAGATATCAAACCTGAGGAA
GGCAGAAGTGAATTTGGAGAAGTAGGGTAGAGAGAGGTTGCTATAAAACGAGCATTGGAGGGCCACGGCTTCA
CTCAGGACCTGCTGGGCTTGTGTACCCAGGAGCCCTTTTAAGTATCTTTGTACGCTTTTCACCCACCCCAA
GTCCTGGGAGAAATGCAGGCAACACTGAGACATGGGAGAGGCCAAGATATGCTTGACAGAAAGGGTGATTTTGAG
GCTCAGTTAATATTTCAAATTTGTAACCGTAGCAAACTGCATTGGTATTTAGAAAAATAAAAAATTTCCA

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FIGURE 4864

GGGCGGACGGCACAGAGGGAGGGAGCGAGCGAGCAGTGAGTAAGCCAGCAAGGGCGGTTCGGGTCCCGAGGTCAGC
CGAGATTTCTCAGGTCCCTCCGGCCCCCTCCCTGGAGTCCACAGCGCCTCCGGTGTCAGAGGATCGGACACGGC
CCGGCCCGGCCATGGCCTCGTTGCTGAAGGTGGATCAGGAAGTGAAGCTCAAGGTTGATTCTTTTCAGGGAGCGGA
TCACAAGTGAGGCAGAAGACTTGGTGGCAAATTTTTTCCCAAAGAAGTTATTAGAACTTGATAGTTTTCTGAAGG
AACCAATCTTAAACATCCATGACCTAACTCAGATCCACTCTGACATGAATCTCCAGTCCCTGACCCATTCTTC
TCACCAATAGCCATGATGGACTGGATGGTCCCCTTATAAGAAGCGAAGGTTGGATGAGTGTGAAGAAGCCTTCC
AAGGAACCAAGGTGTTTGTGATGCCCAATGGGATGCTGAAAAGCAACCAGCAGCTGGTGGACATTATTGAGAAAG
TGAAACCTGAGATCCGGCTGTTGATTGAGAAATGTAACACGCCCTCAGGCAAAGGTCCTCATATATGTTTTGACC
TCCAGGTCAAAATGTGGGTACAGCTCCTGATTCCCAGGATAGAAGATGGAAACAACCTTTGGGGTGTCCATTTCAGG
AGGAAACAGTTGCAGAGCTAAGAACTGTTGAGAGTGAAGCTGCATCTTATCTGGACCAGATTTCTAGATATTATA
TTACAAGAGCCAAATTGGTTTCTAAAATAGCTAAATATCCCCATGTGGAGGACTATCGCCGCACCGTGACAGAGA
TTGATGAGAAAGAATATATCAGCCTTCGGCTCATCATATCAGAGCTGAGGAATCAATATGTCACTCTACATGACA
TGATCCTGAAAAATATCGAGAAGATCAAACGGCCCCGGAGCAGCAATGCAGAGACTCTGTACTGAGGCCAGGGCC
AGGGCCAGGGGACTCTGTGAGTCTGGCTCAAGACCGACATTGCCTTGGTTTGTACATGACTATCGTGATGGGGA
AACTGGCTGGAATAGTAATCACACCTCTCTGTTTTTAGTTAGAGTCTAATGAACTCTCATCTAGTTCTGTGAT
GTGTTTACCTCTTTTTTTCAGGCCTCAGGAACCTCTTCTATTTCCCTTCCCTAATACCCACACCCCAACCTGTGCTAA
TTTCTGGAGAACTCCAGGTTTGTGTGTGCAGGATGTTGGCACAAAAATACCTGTGTTTTTCACTCTCCCCCTCTCT
CCCTCCTGTGCTTTCGCTTTATGTTTTCTCCGTTTGATAATTAGTTGGTTAAAAGCTGAGGGAACCGGAAGGA
AAGTGCTAGGTGTTTTTTCAGGAACCTAGGGTGGCGGGGGGACGAACCTCTCTTCCCTCACATGAGGTTACTGTTTCT
TTCTCTGTGGGGCATTGGATCCTCCACAGTTGCCCTGGTGATGACTTAGGGCTTCCCATCTGTGTACATCCCA
CTTTGAATCTTGATCGTGACAAGAAATACCTTAGGCCTTCAGTCAATTCCGAAGCTCCTTCAGTTGTTTTTATAA
TGGGCGTTTTTCACATGCACATATGTGTATGCATGTATACGCCCATACAGACATGCACACACAGACTCCTACTCCA
TTAGCTAACATACCTCCTCCTCCACAACCCCTGTACATACCTTTTCAGGAGGTGACAGTTGTCTTAGTTGTGAT
CTACCCAGACAAACGTCTGGGCCCCGTCTCCCTCCTGATACTGTAGCCTCTTGGTACCCAGGGTGAGTTGGTGG
AGAACAGAGAGATGAGAAGCAGAGGGCTTGGGGAAAGCCTGTTCTCTCTGACTCAGCCCTTTTTTGGCATTATTG
CAAGAGCTTGACTCCTGGTTGCCTTTTCCAGCCAGTTTTTCAGTTGGGGTGAAGGTTTCTGCAAGTGTGAGGTCC
AGATGCTGCTGCTCATGTTGGGCTTTCTTTTGGGAACTATTTCTCTTTATTTATAGTGTGGGCTTCCGGGGAA
AGCAATCATTTGGTGTGTATGTGTATGTGCATGCACACACGTGCATATACACATTTGTGTATGTGGAAATGTGCTG
GGCAAGTCAAACTATAGAAGAGTTGCCCTCCTGTCTCTCGAATCTTCCAGAGATATCACTTAATTGTTAACAGCT
TTTGTGTTAATCCCTTCAGCCCTAGCTCTTTTATTCTACACGGCTGGAGAGTTGATACCTGCAGTCAGCCTG
CCAGTGACTCTTAGTGTCTGTTTCTGACTTATTTTTCTGTCTCTGTCTTCCAACCCCCAATAATTTTCCACCG
GGGATGCATCATTTTTACTCCCAATATTCTGTAGAGAGGGAGTCAGGATGCTGTCTTCCACGAATAGTACTCAG
TAACAAACCAATTGCATTTTAGTTGGGCAGTGCTCCACCCACCCCTCCAGATCCCTTCCAGCTAAAACCCCTCCC
CCTTCCCTCCATGTGTTTCTCAGTTTCCCGTTTCGTTTGTGGACTGTTCCACTGCCCCCTCCTCCTCACCCCTATC
ACCCATGGATCGTAATGTAAAATCTTTTACCATGTCAAGAAATTATTAATAATACAGGTACTTTGACCTCTTTC
TAAAGCCGCAGACCCTGGTGCAATGCTCTGGTGGCTAGGGATGTACTCATGTGTGTGCACGCTTGGACA
CCCACCTCCATGGACACCTAGCCACCCTGTTGTGTGCTTATGCCAGTTGAGCTGAATCTTTTCCCGAGTATAG
TGGAAGACTGAGGCTTCTGCCTACTGAGCAAGGTTGGGTGCTTTCATTGTGTTTCAGTCTGAATTATGGGAAAGT
TAGCTCTTCCAGACCTAAGCTGCCTTCTCTCCCTACTTTTCAG

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FIGURE 4865

GCTGAAGACAGAGCGATGGTAGTTCTGGAGGCCCTCGCTCCGGGGCCGACCCGAGGCCACAGTGCCCTCCGCGGTAG
ACCGGACTTGGGTGACGGGCTCCGGGCTCCCGAGGTGAAGAGCATCGGGGGCTGAGGGATGGAAGGGTCTAAGAC
GTCCAACAACAGCACCATGCAGGTGAGCTTCGTGTGCCAGCGCTGCAGCCAGCCCCCTGAAACTGGACACGAGTTT
CAAGATCCTGGACCGTGTCAACATCCAGGAACCTCACAGCTCCATTACTTAACACAGCCCAGGCGAAACCAGGAGA
GACCCAGGAGGAAGAGACTAACTCAGGAGAGGAGCCATTTATTGAAACTCCTCGCCAGGATGGTGTCTCTCGCAG
ATTTCATCCCCCAGCCAGGATGATGTCCACAGAAAGTGCCAACAGCTTCACTCTGATTGGGGAGGCATCTGATGG
CGGCACCATGGAGAACCTCAGCCGAAGACTGAAGGTCACTGGGGACCTTTTTGACATCATGTGGGGCCAGACAGA
TGTGGATCACCCACTCTGTGAGGAATGCACAGATACTCTTTTAGACCAGCTGGACACTCAGCTCAACGTCACTGA
AAATGAGTGTGAGAATAACAAACGCTGTTTGAGATCTTAGAGCAAATGAATGAGGATGACAGTGAACAGTTACA
GATGGAGCTAAAGGAGCTGGCACTAGAGGAGGAGAGGCTGATCCAGGAGCTGGAAGACGTGGAAAAGAACCGCCAA
GATAGTGGCAGAAAATCTCGAGAAGGTCCAGGCTGAGGCTGAGAGACTGGATCAGGAGGAAGCTCAGTATCAGAG
AGAATACAGTGAATTTAAACGACAGCAGCTGGAGCTGGATGATGAGCTGAAGAGTGTGAAAACCAGATGCGTTA
TGCCACAGACGCAGCTGGATAAGCTGAAGAAAACCAACGTCTTTAATGCAACCTTCCACATCTGGCACAGTGGACA
GTTTGGCACAATCAATAACTTCAGGCTGGGTGCGCTGCCAGTGTTCCTGGAATGGAATGAGATTAATGCTGC
TTGGGGCCAGACTGTGTGCTGCTCCATGCTCTGGCCAATAAGATGGGTCTGAAATTTTCAAGATACCGACTTGT
TCCTTACGGAAACCATTCATATCTGGAGTCTCTGACAGACAAATCTAAGGAGCTGCCGTTTACTGTTCTGGGGG
GTTGCGGTTTTTCTGGGACAACAAGTTTGACCATGCAATGGTGGCTTTTCTGGACTGTGTGCAGCAGTTCAAAGA
AGAGGTTGAGAAAGGCGAGACACGTTTTTGTCTTCCCTACAGGATGGATGTGGAGAAAGGCAAGATTGAAGACAC
AGGAGGCAGTGGCGGCTCCTATTCCATCAAAACCCAGTTTAACTCTGAGGAGCAGTGGACAAAAGCTCTCAAGTT
CATGCTGACGAATCTTAAGTGGGGTCTTGCTTGGGTGTCCTCACAATTTTATAACAAATGACTTTTTTCTTAGG
GGGAGGTTTGCCTTAAAGGCTTTTAAATTTGTTTTGTTTTGCAAACATGTTTTAAATTAAATTCGGGTAATATTAA
ACAGTACATGTTTACAATACCAAAAAAGAAAAATCCACAAAGCCACTTTATTTTAAATATCATGTGACAGAT
ACTTTCCAGAGCTACAACATGCCATCTATAGTTGCCAGCCCTGGTCAGTTTTGATTTCTTAACCCCATGGACTCCT
TTCCCTTTCTTCTCTGAAAAAACTAATTTAAATTTGCTTTTCTTTTTTTAACTGAGTTGAATTGAGATTGATG
TGTTTTCACTGGATTTTTATCTCTCTCAACTTCCTGCACTTAACAATATGAAATAGAACTTTTGTCTTTACTGA
GATGAGGATATGTTTGAGATGCACAGTTGGATAATGTGGGAAAATGACATCTAAGCTTTACCTGGTCACCATGTG
ATGTGATCAGATGCTTGAAATTTAACTTTTCACTTGGTTCTTATACTGAATGCCGACTCTGCTCTGTGTTAGA
GATATGAAATGGTGTGTTGATACTGTTTGAGACATTATGGAGAGATTTAATTATTTGTAATAAAAGATTGTGCA
GTCTGAAAACCTGAAAAA

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FIGURE 4866

MEGSKISNNSTMQVSFVCQRCSQPLKLDTSFKILDRVTIQELTAPLLTTAQAKPGETQEEETNSGEEPF IETPRO
DGVSRRFIPPARMMSTESANSFTLIGEASDGGTMENLSRRLKVTGDLFDIMSGQTDVDHPLCEECDTLLDQLDT
QLNVTENECQNYKRCLEILEQMNEDDSEQLQMELKELALEEERLIQELEDVEKNRKIVAENLEKVQAEAERLDQE
EAQYQREYSEFKRQQLELDDELKSVENQMRYAQTQLDKLKKTNVFNATFHIWHSQGFGTINNFRGLRPSVPVEW
NEINAAWGQTVLLHALANKMGLKFQRYRLVPYGNHSTYLESLTDKSKELPLYCSGGLRFFWDNKFHAMVAFLDC
VQQFKEEVEKGETRFCLPYRMDVEKGKIEDTGSGSGSYSIKTQFNSEEQWTKALKFMLTNLKWGLAWVSSQFYNK

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FIGURE 4867

TTGGAGGTCCCCCTCCCCACTAAGTGCCTCTTTGCATAGCACCAGTCCCCACCCGCACGCTCTCTGGACCACTAC
AGCTGGACGGGCAATGGCGGGTCGGGGAGGCGCAGCAGACCCCAATGGACCAGCTGCTGGGAACAAGATCTGTCA
ATTTAAGCTGGTTCTGCTGGGGGAGTCTGCGGTAGGCAAATCCAGCCTCGTCCTCCGCTTTGTCAAGGGACAGTT
TCACGAGTACCAGGAGAGCACAATTGGAGCGGCCTTCCTCACACAGACTGTCTGCCTGGATGACACAACAGTCAA
GTTTGAGATCTGGGACACAGCTGGACAGGAGCGGTATCACAGCCTGGCCCCATGTACTATCGGGGGGCCAGGC
TGCCATCGTGGTCTATGACATCACCAACACAGATACATTTGCACGGGCCAAGAAGTGGGTGAAGGAGCTACAGAG
GCAGGCCAGCCCCAACATCGTCATTGCACTCGCGGTAACAAGGCAGACCTGGCCAGCAAGAGAGCCGTGGAATT
CCAGGAAGCACAAAGCCTATGCAGACGACAACAGTTTGCTGTTTCATGGAGACATCAGCAAAGACTGCAATGAACGT
GAACGAAATCTTCATGGCAATAGCTAAGAAGCTTCCCAAGAACGAGCCCCAGAATGCAACTGGTGCTCCAGGCCG
AAACCGAGGTGTGGACCTCCAGGAGAACAACCCAGCCAGCCGGAGCCAGTGCTGCAGCAACTGAGCCCCCTTGC
CTGCCCCTGCCCCCGCCTCCTCCGCCTGAATGACCCGACTGGAATCCACTCTAACCAATCGCACTTAACGACTC
GGGCCACCACTGGGGGGGAGGGGGAGGGGTCCACCATGATTTCTCCATATAATTTTGATCATAGGCCGGAGTGA
GTCATTCCACCTGCACCTTTCTGTACAAATACTAATTCAATTTTAAGTCTTAAGTCACTTTTTTAATATATATGA
TCTTCTGCTCTTCCCACTTCCTCCCCCTTCTACTGCTCTCCCATTTTCCCTTGCTGGGAGTAGCCACATGCTCTT
GCCCCCAACCTTGTATATGGGGACAGTGGGGTCAGTGCAGCTACCCCTTCTTTCCCTCCTGCGGAACAGCGGA
CCCAGCAAGAGCATCCACATCCTCACTTTGTTTCGGAGTGGTCTTTGGTTTGGGCGGTGGGGCAGACCTTGGGAAG
GGGCTTAGGAAGGGAGAGGCAGCTCTTCCTTCAGCTGGCTCTCATCAGGCTGCAGCCCCCTCCCCGCTCCCACCT
CCCTGCTGGGAAACACAGCATTATCACAGCATTATTGTGACAGCCACGAACCCATTGCCCACAACCCCTCCACC
CTCGGTACCCCCAACCTCTGGCTCTGAGCCCTGTTCTGACCAAATCATGATGATGAGTATTTGGGGGTGGGTGGG
TAAGGGGGGGAGTGGGAGGGGACGGAACCAACTTTTCTGTATTTTGTATTGTATGTTTTCTTCAACATGTAACC
AATCAGTATCTTGTCATATAGTCAGCCGATCGATCGACCTC

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FIGURE 4868

MAGRGGARPNGPAAGNKICQFKLVLLGESAVGKSSLVLRVKGQFHEYQESTIGAAFLTQTVCLDDTTVKFEIW
DTAGQERYHSLAPMYRGAQAAIVVYDITNTDTFARAKNWKELQRQASPNIVIALAGNKADLASKRAVEFQEAQ
AYADDNSLLFMETSAKTAMNVNEIFMAIAKKLPKNEPQATGAPGRNRGVDLQENNPASRSQCCSN

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FIGURE 4869

CCGCTCTCCGCTGCGGGGGAGGCCATGCGGGAACCTTCCCAGGCCCGACCCCGGCCCGGCTGCGCAGCCCCGG
CCCCTTCAGTCCCCAGCCCCCTGCCCAACTCCGACTCCTGCACCCAGCCCGGCTTCAGCCCCGATTCCGACTCCC
ACCCCGGCACCAGCCCCCTGCCCAAGCTGCAGCCCCAGCCGGCAGCACAGGGACTGGGGGGCCCCGGGGTAGGGAAGT
GGGGGGGCCCCGGGAGCGGGGGGGATCCGGCTCGACCTGGCTGAGCCAGCAGCAGCGCGCCAGTCAGAGGAAGGCG
CAAGTCCGGGGGCTGCCCGCGGCCAAGAAGCTTGAGAAGCTAGGGGTCTTCTCGGCTTGCAAGGCCAATGAAACC
TGTAAGTGTAATGGCTGGAAAAACCCCAAGCCCCCACTGCACCCCGCATGGATCTGCAGCAGCCAGCTGCCAAC
CTGAGTGAGCTGTGCCGAGTTGTGAGCACCCCTTGGCTGACCACGTATCCCCTTGGAGAATGTGTGAGAGGAT
GAGATAAACCGACTGCTGGGGATGGTGGTGGATGTGGAGAATCTTTCATGTCTGTTTACAAGGAAGAGGACACA
GACACCAAGCAGGTCTATTTCTACCTCTTCAAGCTACTGCGGAAATGCATCCTGCAGATGACCCGGCCTGTGGTG
GAGGGGTCCCTGGGCAGCCCTCCATTTGAGAAACCTAATATTGAGCAGGGTGTGCTGAACCTTTGTGCACTACAAG
TTTAGTCACCTGGCTCCCCGGGAGCGGCAGACGATGTTTCAGCTCTCAAAGATGTTCTGTCTGCTTAACTAC
TGGAAGCTTGAGACACCTGCCAGTTTCGGCAGAGGTCTCAGGCTGAGGACGTGGCTACCTACAAGGTCAATTAC
ACCAGATGGCTCTGTTACTGCCACGTGCCCGAGAGCTGTGATAGCTCCCCCGCTACGAAACCACTCATGTCTTT
GGGCGAAGCCTTCTCCGGTCCATTTTACCCTTACCCGCCGGCAGCTGCTGGAAGATTCCGAGTGGAAGGAC
AAATTGGTGCCCGAGAAGAGGACCCTCATCCTCACTCACTTCCCCAAATTCCTGTCCATGTGAGGAGGAGATC
TATGGGGCAAACCTCTCCAATCTGGGAGTCAGGCTTACCATGCCACCCTCAGAGGGGACACAGCTGGTTCCCCGG
CCAGCTTCAGTCAGTGCAGCGGTTGTTCCCAGCACCCCATCTTCAGCCCCAGCATGGGTGGGGGACGAAACAGC
TCCCTGAGTCTGGATTCTGCAGGGGCCGAGCCTATGCCAGGCGAGAAGAGGACGCTCCAGAGAACCTGACCCTG
GAGGATGCCAAGCGGCTCCGTGTGATGGGTGACATCCCCATGGAGCTGGTCAATGAGGTCATGCTGACCATCACT
GACCCTGCTGCCATGCTGGGGCCTGAGACGAGCCTGCTTTCGGCCAAATGCGGCCCGGGATGAGACAGCCCGCCTG
GAGGAGCGCCGCGGCATCATCGAGTTCCATGTCTATCGGCAACTCACTGACGCCCAAGGCCAACCAGCGGGTGTG
CTGTGGCTCGTGGGGCTGCAGAAATGCTTTTCCCACCAGCTGCCGCGCATGCCTAAGGAGTATATCGCCCGCCTC
GTCTTTGACCCGAAGCACAAAGACTCTGGCCTTGATCAAGGATGGGCGGGTCATCGGTGGCATCTGCTTCCGCATG
TTTCCCACCCAGGGCTTACGGAGATGCTTCTGTGCTGTACCTCGAATGAGCAGGTCAAGGGTTATGGGACC
CACCTGATGAACCACCTGAAGGAGTATCACATCAAGCACAACTTCTCTACTTCTCCTACCTACGCCGACGAGTAC
GCCATCGGCTACTTCAAAAAGCAGGGTTTCTCCAAGGACATCAAGGTGCCCAAGAGCCGCTACCTGGGCTACATC
AAGGACTACGAGGGAGCGACGCTGATGGAGTGTGAGCTGAATCCCCGCATCCCCCTACACGGAGCTGTCCACATC
ATCAAGAAGCAGAAAGAGATCATCAAGAAGCTGATTGAGCGCAAAACAGGCCAGATCCGCAAGGTCTACCCGGGG
CTCAGCTGCTTCAAGGAGGGCGTGAGGCAGATCCCTGTGGAGAGCGTTCTTGGCATTGAGAGACAGGCTGGAAG
CCATTGGGGAAGGAGAAGGGGAAGGAGCTGAAGGACCCCGACCAGCTCTACACAACCCCTCAAAAACCTGCTGGCC
CAAATCAAGTCTCACCCAGTGCTGGCCCTTCATGGAGCCTGTGAAGAAGTCGGAGGCCCTGACTACTACGAG
GTCATCCGCTTCCCCATTGACCTGAAGACCATGACTGAGCGGCTGCGAAGCCGCTACTACGTGACCCGGAAGCTC
TTTGTGGCCGACCTGCAGCGGTCATGCCAACTGTGCGGAGTACAACCCCCCGGACAGCGAGTACTGCCGCTGT
GCCAGCGCCCTGGAGAAGTTCTTCTACTTCAAGCTCAAGGAGGGAGGCCTCATTGACAAGTAGGCCCATCTTTGG
GCCGAGCCCTGACCTGGAATGTCTCCACCTCGGATTCTGATCTGATCCTTAGGGGGTGCCCTGGCCCCACGGAC
CCGACTCAGCTTGAGACACTCCAGCCAAGGGTCCTCCGACCCGATCCTGCAGCTCTTCTGGACCTTCAGGCAC
CCCCAAGCGTGACGCTCTGTCCAGCCTTCACTGTGTGTGAGAGGTCTCCTGGGTTGGGGCCCAGCCCCCTCTAGA
GTAGCTGGTGGCCAGGGATGAACCTTGCCAGCCGTGGTGGCCCCAGGCCTGGTCCCCAAGAGCTTTGGAGGCT
TGGATTCTGGGCTGGCCAGGTGGCTGTTTCCCTGAGGACCAGAACTGCTCATTTTAGCTTGAGTGATGGCTT
CAGGGGTGGAAGTTAGCCCAAACCTGAAGGGGGCCATGCCTTGTCCAGCACTGTTCTGTGAGTCTCCCCAGGG
GTGGGGGGTATGGGGACCATTCAATCCCTGGCATTAATCCCTTAGAGGGAATAATAAAGCTTTTTATTCTCTG

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FIGURE 4870

MAEPSQAPTPAPAAQPRFLQSPAPAPTPTTPAPSPASAPIPTPTPAPAPAPAAAPAGSTGTGGPGVGSGGAGSGGD
PARPGLSQQQRASQRKAQVRGLPRAKKLEKLGVF SACKANETCKCNGWKNPKPPTAPRMDLQQPAANLSELCRSC
EHPLADHVSHLENVSEDEINRLLGMVVDVENLFMSVHKEEDTDTKQVYFYLFKLLRKCILQMTRPVVEGSLGSPP
FEKPNIEQQVLNFVQYKFSLAPRERQTMFELSKMFLCLNYWKLETPAQFRQRSQAEDVATYKVNYTRWLCYCH
VPQSCDSLPRYETTHVFGRSLLRSIFTVTRRQLEKFRVEKD KLVPEKRTLILTHFPKFLSMLEEEIYGANSPIW
ESGFTMPPSEGTQLVPRPASVSAAVVPSTPIFSP SMGGGSNSSLSLDSAGAEMPGEKRTL PENLTLED AKRLRV
MGDIPMELVNEVMLTITDPAAMLGPETSLLSANAARDETARLEERRGIEFHVIGNSLTPKANRRVLLWLVLQON
VFHQQLPRMPKEYIARLVFDPKHKTALIKDGRVIGGICFRMFPTQGFTEIVFCAVTSNEQVKGYGTHLMNHLKE
YHIKHNI LYFLTYADEYAIGYFKKQGF SKDIKVPKSRYLGYIKDYEGATLMECELNPRIPTYELSHI IKKQKEII
KKLIERKQAQIRKVYPGLSCFKEGVRQIPVESVPGIRETGWKPLGKEKGKELKDPDQLYTTLKNLLAQIKSHPSA
WPFMEPVKKSEAPDYEVIRFPIDLKTMTERLSRYVTRKLFVADLQRVIANCREYNPPDSEYCRCASALEKFF
YFKLKEGGLIDK

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FIGURE 4871

GGCACGAGGCGCGAGCTCGGAGGGCCCGGCTGGTGTGCGGGGGCCCCGGGAGGTTGAAAATAAGCATGGGGAA
GAGCTGCAAGGTGGTCGTGTGTGGCCAGGCGTCTGTGGGCAAACTTCAATCCTGGAGCAGCTTCTGTATGGGAA
CCATGTAGTGGGTTCGGAGATGATCGAGACGCAGGAGGACATCTACGTGGGCTCCATTGAGACAGACCGGGGGT
GCGAGAGCAGGTGCGTTTCTATGACACCCGGGGGCTCCGAGATGGGGCCGAAGTCCCCGACACTGCTTCTCTTG
CACTGATGGCTACGTCCTGGTCTATAGCACAGATAGCAGAGAGTCTTTTCAGCGTGTGGAGCTGCTCAAGAAGGA
GATTGACAAATCCAAGGACAAGAAGGAGGTCACCATCGTGGTCCTTGGCAACAAGTGTGACTTACAGGAGCAGCG
GCGTGTAGACCCAGATGTGGCTCAGCACCTGGGCCAAGTCAGAGAAGGTGAAGCTGTGGGAGGTGTCAGTGGCGGA
CCGGCGCTCCCTCCTGGAGCCCTTTGTCTACTTGGCCAGCAAGATGACGCAACCCAGAGCAAGTCTGCCTTCCC
CCTCAGCCGGAAGAACAAGGGCAGCGGCTCCTTGGATGGCTGAAGAGCTGCCGTTCTCTTTACGATCCCAGCC
CCATTTTCAGTGTCTGGGGCTCTGGTAGATGTGTTGAGGGCAAAGTAGAGGACAAGCTGTCTTTCCAGTCAGCCA
GGGAGCTCCCCGCCAGGCCACGCCCCAGCCACTTGTCTCCCTCTCACCTCTGGGAAGTGCAAATACTCTTGTTG
ACATCCCTTCCCTCAGCCCTCCCAGCCTACTCCCCATCCCAGCTTTTAGAGGATCTGCTCCACTGTCTCCTGGGG
CAGTTGTGGGTCAGTGTCCCTTCCAGCTGCCCCAGACAGGAAGCAGAGTCACCACGCAGCAGTGTCCCTTCTTGG
GTCTGAGTTCCTATTATAGGTAGGGGCCCCACCCTCTGGGCTTCCCATCAGCGACACACACACTTATGGCACC
AGCCTGGACTCCAGAAAAAGGGTGTCCAGGTATTGTGTGTATGCATTTAGTTGTGCACACACAAATATGCTCCTA
TACTGGCATTAGGCGTCTCCTCATCCCTCACCCCTGACCTTTCTCCTGTCTTTCTTGGCTGGAAGAAGTTGGCC
TCCTGGGAGTGTAGTTTCTGTTTTAAATCCCCCACCCTGGCTGGGCTCAGTGGCTCACCCCTGTAATCCCAGC
ACTTTGGGAGGCCAAGGCGGGTCGATTACTTGAGGTGAGGAGTTACGACCAGCCTGGCCAACATTGTGAAACCC
CATCTCTGCCAAAAATACAAAAGTTAGCCGGGCGTAGTGGCACATGCCTGTAATCCCAGCTACCCGGGGAGGCTG
AGGCAGGAGAATTGCTTGAAGTCAAGAGCGGAGGCTGCAGTGAGCCGAGATCGTGCCACTGCACTCCAGCCTGG
TCAACAGAGCAAGACTCCATCTCGAAAAAAAAAAAAAAAAAAAAA

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FIGURE 4872

MGKSCKVVVCGQASVGKTSILEQLLYGNHVVGSEMIETQEDIYVGSJETDRGVREQVRFYDTRGLRDGAELPRHC
FSCTDGYVLVYSTDSRESFORVELLKKEIDKSKDKKEVTIVVLGNKCDLQEQRRVDPDVAQHWAKSEKVKLWEVS
VADRRSLLEPFVYLASKMTQPQSKSAFPLSRKNKGSGSLDG

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FIGURE 4873

GGGAAGATGCGCGCTGTCTGAAGCGGCTGCAGAGCCGGTAACGGTGGTGGCGGCTGTTGGGCCAAAGGCGAAAGAC
GAAGAGGAGGAGGAAGAGGAGCCGCTGCCACCGTGCGAGGCGGTGCGCTGGGCCCCAGTGGGGGCGGTGGCGGAG
GCCCCGCTGGGGCAACCGCGTTTTTAGAAGAGGCGACGGCCGAGGAGCCTGGCGCGGCCCGGGCTCCCCGCCG
GATTCGCGCGGCGGACGCTGCGGCGGCTGCGGGCAGAGCGGCGGCGGCTGGACTCGGCGCTGCTGGCGCTGTCC
TCGCACTTCGCGCAGGTGCAGTTCCGCCTGCGCCAGGTGGTGC GCGGGGCGCCGGCGGAGCAGCAGCGCTTCTG
CGGGAGCTCGAAGACTTCGCCTTCGCGGCTGCCCTCACGTCCTAGGTTACGAAGGGCCCGGCGACCCCGCCAGC
GATGAGGGCGATGGGCTGCCAGGGGACCGGCCATGGTTGCGGGGCGAGGACCAGAGTGAGCAGGAAAAGCAAGAG
CGTCTGGAAACCCAAAGGGAGAAGCAGAAAGAACTGATACTGCAGCTCAAGACCCAGCTAGATGACCTGGAAACG
TTTGCTATCAAGAGGGCAGTTATGACTCGCTGCCACAGTCCGTGGTGTGGAAAGACAGCGGGTGATCATAGAT
GAGTTAATAAAGAACTGGACATGAATCTGAATGAGGACATCAGTTCCCTGTCCACTGAAGAGCTTCGTCAGCGT
GTAGATGCAGCAGTGGCTCAGATCGTCAACCCAGCCGAGTCAAAGAACAGTTGGTTGAGCAACTGAAAACCTCAG
ATCCGAGACCTTGAGATGTTTATCAACTTCATCCAAGATGAAGTGGGAAGCCCCCTTGCGAGACAGGTGGTGGACAC
TGTGAGTGCAAGGCCGGTGGGAAGACAGGAAATGGCTGCAGCAGAACAGGCAGCAGCAGAACGCCCTCCAGGAAAC
AGCAAAACAAAGGCAGAGGATGTGAAGAAAGTCCGGGAGACGGGGCTGCACCTGATGCGGCGAGCGCTGGCCGTG
CTCCAGATCTTTGCTGTTAGCCAGTTTGGTTGTGCCACAGGCCAGATCCCTCCAACCTGTGGCAGAGGGTCCAG
GCTGACAGAGACTACTCTCCCTTGCTGAAGAGGCTGGAGGTGTCAGTGGACAGAGTGAAGCAGCTAGCCTTGAGG
CAGCAGCCACATGACCATGTCATCACCTCTGCCAACCTCCAGGACCTCTCTCTGGGAGGCAAGGATGAGCTGACT
ATGGCTGTGCGGAAGGAGCTAACGGTGGCTGTGAGGGACCTGCTGGCCCATGGACTGTATGCCTCCTCCCAGGG
ATGAGCCTTGTTATGGCTCCTATTGCTTGTGTTGCTGCCAGCCTTCTCCTCGGCCCCAGAGGCCATGCACCCGTGG
GAGCTCTTTGTAAAGTACTACCATGCTAAGAACGGCCGTGCTTATGTGGAATCCCCAGCCCGAAGCTCTCCCAG
TCCTTCGCCCTTCTGTACGGGAGGCAGTGTGTCACCCCAACAGAGCCTACTGACAGCCATCCACATGGTG
CTGACAGAGCATGACCCTTTTAAGCGCAGTGCAGACTCAGAATGAAGGCCTTGGTGTGATGGCACTGAATGAG
CAGCGTCTGGTGTCTGGGTGAACCTCATCTGCAAGTCCGGTCACTCATCGAGCCTCACTACCAGCCCTGGAGC
TACATGGCACACACAGGCTTTGAGAGTGCCTCAACCTGCTCAGTCGCTCAGCAGCCTCAAGTTTAGCCTCCCT
GTAGATCTGGCTGTGCGCCAGCTCAAAAACATCAAAGATGCCTTTTGATGAGAGTGCCCTAACCCAGACAAGCT
CCTTGTTCAGTAGGGATAGATGTGCTAGTCTTAGCATAGGAGCAAGGAATCAGAGGTGGGGTTAAAGGCATTT
TTCCAGACCCCTGCTCAGGCAGTCGGCCAAATGAGTGCAAAGTCTGTTTTCCCCACCAACTTAGCTCTCGGAAAG
ATGTGCTGGAGGGACCCCTCTTGTTAAGAAGGTTCTGCCAGGCCGGGCGCGGTGGCTCACACCTGTAATCCCAGCA
CTTTGGGAGGCCGAGGCGGGCGGATCACAAGGTCAGGAGTTCGAGACCATCCTGTCTAACACGGTGAAACCCCAT
CTCTACTAAAAATACAAAAAATTAGTCGGACATGGTGGCAGGCACCTGTAGTCCCAGCTACTCGGGAGGCTGAG
GCAGGAGAATGGCGTGAACCCAGGAGGCGGAGCTTGCAAGTGAGCCAAGATCGCGCCACTGCACTCCAGCCTGGGC
GACAGAGTGAGACTCCGTCTC

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FIGURE 4874

MAAVEAAAEPVTVVAAVGPKAKDEEEEEEEPLPPCEAVRWAPVGAVAEARPGATAFLEEATAEEPGAAPGSPPDS
PGRTLRLRAERRRLDSALLALSSHFAQVQFRLRQVVRGAPAEQQORLLRELEDFAFRGCPHVLGYEGPGDPASDE
GDGLPGDRPWLRGEDQSEQEKQERLETQREKQKELILQLKTQLDDLET FayQEGSYDSL PQSVVLERQ RVIIDEL
IKKLD MNLNEDISSLSTEELRQRVDAAVAQIVNPARVKEQLVEQLKTQIRDLEMFINFIQDEVGSPLQTGGGHCE
CKAGGKTGNGCSRTGSSRTPPGNSKTKAEDVKKVRETGLHLMRRALAVLQIFAVSQFGCATGQIPPTLWQRVQAD
RDYSPLLKRLEVSVDRVKQLALRQQPHDHVITSANLQDLSLGGKDELTMVRKELTVAVRDLLAHGLYASSPGMS
LVMAPIACLLPAFSSAPEAMHPWELFVKYYHAKNGRAYVES PARKLSQSFALPVTGGTVVTPKQSLLTAIHMLT
EHD PFKRSADSELKALVCMALNEQRLVSWVNLICKSGSLIEPHYQPWSYMAHTGFESALNLLSRLSSLKFSLPVD
LAVRQLKNIKDAF

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FIGURE 4875

CTTCCCCAGCTGTGCACTCTCCATCCAGCTGTGCGCTCTCGTCGGGAGTCCCAGCCATGTCCGACGAGAGAGAGG
TAGCCGAGGCAGCGACCGGGGAAGACGCCTCTTCGCCGCCTCCGAAAACCGAGGCAGCGAGCGACCCCCAGCATC
CCGCGGCCTCCGAAGGGGCCGCCGCCGCCGCCCTCGCCGCCACTGCTGCGCTGCCTAGTGCTCACC GGCTTTG
GAGGCTACGACAAGGTGAAGCTGCAGAGCCGGCCGGCAGCGCCCCCGGCCCTGGGCCCGGCCAGCTGACGCTGC
GTCTGCGGGCCTGCGGGCTCAACTTCGCAGACCTCATGGCTAGGCAGGGGCTGTACGACCGTCTCCCGCCTCTGC
CTGTCACTCCGGGCATGGAGGGCGCGGGTGTGTGATCGCAGTGGGCGAGGGAGTCAGCGACCGCAAGGCAGGAG
ACCGGGTGATGGTGTGAACCGGTCAGGGATGTGGCAGGAAGAGGTGACTGTGCCCTCGGTCCAGACCTTCCTGA
TTCCTGAGGCCATGACCTTTGAGGAAGCTGCTGCCTTGCTCGTCAATTACATTACAGCCTACATGGTCCTCTTTG
ACTTCGGCAACCTACAGCCTGGCCACAGCGTCTTGGTACACATGGCTGCAGGGGGTGTGGGTATGGCTGCCGTGC
AGCTGTGCCGTACAGTGGAGAATGTGACAGTGTTCGGAACGGCCTCGGCCAGCAAGCAGGAGGCACTGAAGGAGA
ATGGGGTCACACATCCCATCGACTATCACACGACTGACTACGTGGATGAGATCAAGAAGATTTCCCTAAAGGAG
TGGACATTGTATGGACCTCTGGGTGGGTGAGATACTGCCAAGGGCTACAACCTCCTGAAACCCATGGGCAAAG
TCGTACCTATGGAATGGCCAACCTGCTGACGGGCCCAAACGGAACCTGATGGCCCTGGCCCGGACATGGTGGA
ATCAGTTTCAGCGTGACAGCTCTGCAGCTGCTGCAGGCCAACC GGCTGTGTGTGGCTTCCACCTGGGCTACCTGG
ATGGTGAGGTGGAGCTGGTCAGTGGTGTGGTGGCCCGCCTCCTGGCTCTGTACAACCAGGGCCACATCAAGCCCC
ACATTGACTCAGTCTGGCCCTTCGAGAAGGTGGCTGATGCCATGAAACAGATGCAGGAGAAGAAGAATGTGGGCA
AGGTCCTCCTGGTTCCAGGGCCAGAGAAGGAGAACTAGGGCAAGTGGCTGTGAGACCCTAGAGACCAGCGAAGGG
AGAAGTTGGGAAGCTACGTTCTGTTGGCCACCAGACTTGCAATTCAGCCTCTGTATAATGCTCTGCCCTCCCTC
CCCCGAAGTTCTCTGTGGTGATGACCGCTCTCCCTGCCCTCCCGCTTCTGACCTCTGAAGAGGTGGGAAG
TGACCATTTGGATGTCTGGGCCCTGCCAAGGCGACAGGGAGGGTCAGAGGGAGGCCGGCTGCTTCTGCCCCAC
CCTTTCCCGGGCCTGCTGTGCTGCTTTTGTGCCAAGGTTAGCCAGTCCCCCTGTTGTGTTCCATGTGCTTTCA
CCTCTGCCTCATCTTTCTCCTCCCGTCCCTGCCCGCCACCTCCCCAAAGAATTGAAACGTCAGCTCAGGATATGGG
GCCAATCTCTGTGAGTCCAGCATGTACCTGTCTCTCCCTAGTGTCCCTTCAGCCTGGGCTGACCAAGTCCCGCCT
CTGGGCTTGACCAAGTTCCCAATCTCGTCCTCTGTCCCCAACTTCTTAAGCACAAATTGGGCTTCTTCCATCTCCAG
GTTTTCTGCCATTCTTAACCAAGGCTGCCTCTTCCAACAGGGCGGGAATCAGACCTACTCCCTAGGTCACAAC
CTGGGAAGGATACAGAGCCCCACCCCTTCACTGAGTTCTCTGGATTTGTTCTCAGTGCCTTAGCAACGAAAACCT
GTGCTTGTGTGTGTGTGGCGGCGGGAGGGAGGATCTGTTTCCACCTCCTTCTCCTCCCTGTACTCCCCAGT
GCCTTCTTGTCTGTGGTGGAGCTGGGGTTTCTCTCCTCCCAAGTCCCAACACTGCCAAAAATCTGTGTATGTG
CCATTGGGTGGGCGAGCCCCAAGCCTCCTGGGAGGCAGGGCAAAAACAGGTGCCCTCATCGTGGTCTGTGCCAT
GTCCCGTCTCTATGGTGGTTGAGGAGAAAGGCGGGGAAGCTTCTCAGCCTTGAGATATGTGTGGCATTACTA
GCCAGAGCTCTGAAAGGCAGTGTGTCTGTTTCTTGTACTGGGACCAAAGTAAAAATCCAAGCACATTCCCTTG
CAGTTAGGGGAGGCCCTACTGCCTTCTCAAAGCAGAGAGGCAGCTTATCAAACCTCAGCCCAAACTCTGTTTACA
TGGGTGGGAGATGGAGCAGGGAAGTACAGAGTGGGATGGTCAGGACCTGGGCCATTGCAACCAAAATGGGGACT
TCCTGGGTAGGGAGGTCACTCCCTCTACTCACTGAGCTAGGATTAGGGAGGGTTATTGCCCAACCATGCAATG
GGAGGTGGAGGGACAGGCTCAGCCTCCTCATTGTCTAAATGAGGCCTAAATGTGTGAAGTGCATTCTGCTTTT
GTGTACCCCAACCACCCATTACCACAGCTGCCTTTGTGTGTTTGTGTCAATAAAAAGCCAAACCTGGGAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 4876

MSDEREVAEAAATGEDASSPPPKTEAASDPQHAAASEGAAAAAASPPLLRLCLVLTGFGGYDKVKLQSRPAAPPAPG
PGQLTLRLRACGLNFADLMARQGLYDRLPPLPVTPGMEGAGVVI AVGEGVSDRKAGDRVMVLNRSGMWQEEVTV
SVQTFLIPEAMTFEEAAALLVNYITAYMVLFD FGNLQPGHSLVHMAAGGVGMAAVQLCRTVENVTVFGTASASK
HEALKENGVTHPIDYHTTDYVDEIKKISPKGVDIVMDPLGGSDTAKGYNLLKPMGKVVTYGMANLLTGPKRNLMA
LARTWWNQFSVTALQLLQANRAVCGFHLGYLDGEVELVSGVVARLLALYNQGH IKPHIDSVWPF EKVADAMKQMQ
EKKNVGKVL LVP GP EKEN

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FIGURE 4877

ATGGAGGGGCGAGACGGCCGCTGCAAGATCGTGGTGGTGGGAGACGCAGAGTGC GGCAAGACGGCGCTGCTGCAG
GTGTTGCGCAAGGACGCCTATCCCGGGAGTTATGTCCCCACCGTGTTTGAGAACTACACTGCGAGCTTTGAGATC
GACAAGCGCCGCATTGAGCTCAACATGTGGGACACTTCAGGTTCTCTTACTATGATAATGTCCGGCCTCTGGCC
TATCCTGATTCTGATGCTGTGCTCATCTGCTTCGACATTAGCCGACCAGAAACACTGGACAGTGTTCTCAAGAAG
TGGCAAGGAGAGACTCAAGAGTTCTGCCCCAATGCCAAGGTTGTGCTGGTTGGCTGTAAACTGGACATGCGGACT
GACCTGGCCACACTGAGGGAGCTGTCCAAGCAGAGGCTTATCCCTGTTACACATGAGCAGGGCACTGTGCTGGCC
AAGCAGGTGGGGGCTGTGTCCTATGTTGAGTGCTCCTCCCGTCTCTGAGCGCAGCGTCAGGGATGTCTCCAT
GTGGCTACAGTGGCCTCCCTTGGCCGTGGCCATAGGCAGCTGCGCCGAACTGACTCACGCCGGGGAATGCAGCGA
TCCGCTCAGCTGTGAGGACGGCCAGACCGGGGAATGAGGGCGAGATACACAAGGATCGAGCCAAAAGCTGCAAC
CTCATGTGA

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FIGURE 4878

MEGQSGRCKIVVVGDAECGKTALLQVFAKDAYPGSYVPTVFENY TASFEIDKRRIELNMWDTSGSSYYDNVRPLA
YPDSDAVLICFDISRPE TLDSVLKKWQGETQEFCPNAKVVLVGCKLDMRTDLATLRELSKQRLIPVTHEQGTVLA
KQVGAVSYVECSSRSSERSVRDVFHVATVASLGRGHRQLRRTDSRRGMQSAQLSGRPDRGNEGEIHKDRAKSCN
LM

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FIGURE 4879A

GGCGGAAGCACGATCTCCGGCAGCGGCCTGGGAACCTCTAGCTGAGCAGGCGAGAGCATCATGGATACCGACTTA
TATGATGAGTTTGGGAATTATATTGGACCAGAGCTTGATTCTGATGAAGATGATGATGAATTGGGTAGAGAGACC
AAAGATCTTGATGAGATGGATGATGATGACGACGACGATGACGTAGGAGATCATGACGATGACCACCCTGGGATG
GAGGTGGTGCATGAGGACAAGAAGTACTACCCAACAGCCGAGGAGGTGTATGGTCTGAGGTGGAGACCATA
GTTCAAGAGGAAGACACTCAGCCTCTCACAGAACCCATTATTAAGCCAGTGAAAACCAAGAAATTCACCTCTGATG
GAGCAGACATTACCTGTTACGGTGTATGAGATGGATTCTTGCGGATCTGATGGATAACTCAGAGCTCATCAGA
AATGTGACCCTTTGTGGACATCTCCACCATGGCAAGACATGTTTTGTGGATTGTTAATTGAACAGACTCACCCG
GAAATCAGAAAGCGCTATGACCAAGATCTGTGCTATACTGACATCCTCTTCACAGAGCAAGAGAGAGGTGTAGGC
ATCAAAAGCACTCCTGTGACAGTGGTCTTGCCAGACACCAAGGAAAATCTTATCTCTTCAATATCATGGACACT
CCAGGACATGTGAATTTCTCTGATGAGGTCACAGCTGGCTTGCGCATCTCAGATGGAGTGGTCTTTTTCATTGAT
GCTGCTGAGGGGGTGATGCTGAACACAGAGCGGCTGATCAAGCATGCGGTGCAGGAGAGGCTGGCAGTCACTGTG
TGCATCAACAAGATTGACCGGCTGATCCTGGAGCTGAAGCTGCCCTCAACTGATGCTTATTACAAGCTGCGCCAC
ATTGTGGATGAGGTCAATGGATTAATAAGCATGTATTCCACTGATGAGAACCTGATCCTTTCCCACTCCTGGGT
AACGCTCTGCTTCTCCAGCTCCCAGTACAGCATCTGCTTCACGCTGGGCTCCTTTGCCAAGATCTATGCCGACACC
TTTGGTGACATTAATTACCAAGAATTTGCTAAAAGACTCTGGGGTGACATCTACTTCAACCCCTAAGACGCGAAAG
TTCACCAAAAAGGCCCAACTAGCAGCTCCCAGAGAAGTTTCGTGGAGTTTATCTTGGAGCCTCTTTATAAGATC
CTCGCCAGGTTGTAGGTGACGTGGACACCAGCCTCCCACGGACCCTAGACGAGCTTGGCATCCACCTGACGAAG
GAGGAGCTGAAGCTGAACATCCGCCCTTGCTCAGGCTGGTCTGCAAAAAGTTCTTTGGCGAGTTCACAGGCTTT
GTGGACATGTGTGTGCAGCATATCCCTTCTCCAAAGGTGGGCGCCAAGCCCAAGATTGAGCACACCTACACCGGT
GGTGTGGACTCCGACCTCGGCGAGGCTATGAGTGACTGTGACCCTGATGGCCCCCTGATGTGCCACACTACTAAG
ATGTACAGCACAGATGATGGAGTCCAGTTTCACGCCCTTTGGCCGGGTGCTGAGTGGCACCATTTCATGCTGGGCAG
CCTGTGAAGGTACTGGGGGAGAACTACACCCTGGAGGATGAGGAAGACTCCAGATATGCACCGTGGGCCGCTT
TGGATCTCTGTGGCCAGGTACCACATCGAGGTGAACCGTGTCTCTGCTGGCAACTGGGTTCTGATTGAAGGTGTT
GATCAACCAATTGTGAAGACAGCAACCATAACCGAACCCCGAGGCAATGAGGAGGCTCAGATTTTCCGACCCCTTG
AAGTTCAATACCACATCTGTTATCAAGATTGCTGTGGAGCCAGTCAACCCCTCAGAGCTGCCCAAGATGCTTGAT
GGCCTGCGCAAGGTCAACAAGAGCTATCCATCCCTCACCACCAAGGTGGAGGAGTCTGGCGAGCATGTGATCCTG
GGCACTGGGGAGCTCTACCTGGACTGTGTGATGATGATTTGCGGAAGATGTACTCAGAGATAGACATCAAGGTG
GCTGACCCAGTTGTACGTTTTGTGAGACGGTGGTGGAAACATCCTCCCTCAAGTGCTTTGCTGAAACGCCTAAT
AAGAAGAACAAGATCACCATGATTGCTGAGCCTCTTGAGAAGGGCCTGGCAGAGGACATAGAGAATGAGGTGGTC
CAGATTACGTGGAACAGGAAGAAGCTGGGAGAGTTCTTCCAGACCAAGTACGATTGGGATCTGCTGGCTGCCCGT
TCCATCTGGGCTTTTGGCCCTGATGCGACTGGCCCCAACATTCTGGTGGATGATACTCTGCCCTCTGAGGTGGAC
AAGGCTCTTCTTGGTTCAAGTGAAGGACAGCATCGTTCAAGTTTCCAGTGGGGAACAGGGAGGGCCCCCTCTGT
GATGAATTGATTGGAATGTCAAGTTTAAGATCCTGGATGCGGTGGTTGCCAGGAGCCCTGCACCGGGGCGGG
GGCCAGATCATCCCCACAGCCAGGAGAGTCTGCTACTCTGCCCTTCTCATGGCTACTCCTCGTCTGATGGAGCCT
TACTACTTTGTAGAGGTCCAGGCCCTGCAGATTGCGTCTCTGCAGTTTATACCGTCCTGCCAGGCGCAGGGGG
CACGTGACTCAGGATGCACCCATCCCAGGCTCCCCTCTGTACACCATCAAAGCTTTTATCCCGGCCATCGACTCT
TTTGGCTTTGAGACTGATCTCCGGACTCACACCCAGGGACAAGCCTTTTCTCTGTCTGTCTCCACCACTGGCAG
ATTGTGCTGGTGATCCCCTGGACAAGAGCATTGTATCCGCCCTTTGGAGCCACAGCCAGCTCCTCACCTGGCC
CGGGAATTCATGATCAAAACCCGCCGTAGGAAGGGCCTCAGTGAAGATGTGAGCATCAGCAAAATCTTCGATGAT
CCTATGTTGCTGGAACCTTGCCAAACAGGATGTTGTGCTCAATTACCCCATGTGAGTGCGTGACTCCTGGGAGCT
CCTGCTCCCTACAGTGGGCTGCAACTCCTGTACTTGAAGCTGAGACCTCATATGACGTGGCCTTCGTGTTGTGAG
AGAGTGTCTGGAAGCTGCTGTTGCCATCTTGAACAACCTACCAACCTCCAACCCAGAGCCCCAGTGAGAGAGGAG
CATTTGGCCTCCTGCTTCTTCTGTGGCCTCTGCCGGGCTCCATTCCCAAGGAAAAGAGAGGAGCTTGGGCTCAC
AGAAAGAGAAGGGGATGAAACCCCAAGGGGCCCTATCTTTGGGATTTACATGGAATTTTATTTTCTACAAGTTTG
ACCTTAGCCATGGTTTGCAAGTGAACAGAACATTCTGACCTCTGTCTGCTCTGCTCCTTTTCATCCTCGTCTCCC
CTGCCCCATCTGGTGCTTACATTCTGAATATATGTCATCTCCAAGAGGCTTCACTGCCCTCTGCTTCCAGCTGCA
GCCTCCTTCTGCTGGGTCCCCAGGGAAGCCGCTGCTTTTTAATTCAGTGTTCCTATGAGCGCCAAGGCCCA
TTATTGCCCTTGTCTCCACTCCATGCTGCTTCTGGGTGGGACCTAAGATGGCTTGGGAGTTGTTGGGTTCTG

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FIGURE 4879B

CGATCAGAAGTCTACCCCACCACCTCCTCAGGAAACTGCTGCCTCCCCTAAGAATCTTCCTTGCCCTGGAGTAGG
GGGCCAGAGCACTTTGATTTCAGCCATTTACTCCAAGTCCTCTCCCCAGCTACCACCAGTCCCTTACTCTGTTC
TCCCCAGTGAAAAAGAGTCTGTTGATTTTCCTC

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FIGURE 4880

AGAGCCAGAGCAGGATGGAGAGGAGACGCATCACCTCCGCTGCTCGCCGCTCCTACGTCTCCTCAGGGGAGATGA
TGGTGGGGGGCCTGGCTCCTGGCCGCCGTCTGGGTCTGGCACCCGCTCTCCCTGGCTCGAATGCCCCCTCCXA
CTCCCGACCCGGGTGGATTTCTCCCTGGCTGGGGCACTCAATGCTGGCTTCAAGGAGACCCGGGCCAGTGAGCGG
GCAGAGATGATGGAGCTCAATGACCGCTTTGCCAGCTACATCGAGAAGGTTGCTTCTGGAACAGCAAAACAAG
GCGCTGGCTGCTGAGCTGAACCAGCTGCGGGCCAAGGAGCCCACCAAGCTGGCAGACGCTTACCAGGCTGAGCTG
CGAGAGCTGCGGGCTGCGGGCTCGATCAACTCACCGCCAACAGCGCCCGGCTGGAGGTTGAGAGGGACAATCTGGCA
CAGGACCTGGCCACTGTGAGGCAGAAGCTCCAGGATGAAACCAACCTGAGGCTGGAAGCCGAGAACAACCTGGCT
GCCTATAGACAGGAAGCAGATGAAGCCACCCTGGCCCGTCTGGATCTGGAGAGGAAGATTGAGTCGCTGGAGGAG
GAGATCCGGTTCTTGAGGAAGATCCACGAGGAGGAGGTTGCGGAACCTCAGGAGCAGCTGGCCCGACAGCAGGTC
CATGTGGAGCTTGACGTGGCCAAGCCAGACCTCACCGCAGCCCTGAAAGAGATCCGCACGCAGTATGAGGCAATG
GCGTCCAGCAACATGCATGAAGCCGAAGAGTGGTACCGCTCCAAGTTTGACAGACCTGACAGACGCTGCTGCCCCG
AACGCGGAGCTGCTCCGCCAGGCCAAGCACGAAGCCAACGACTACCGGCGCCAGTTGACGTCTTGACCTGCGAC
CTGGAGTCTCTGCGCGGCACGAACGAGTCCCTGGAGAGGCAGATGCGCGAGCAGGAGGAGCGGCACGTGCGGGAG
GCGGCCAGTTATCAGGAGGCGCTGGCGCGGCTGGAGGAAGAGGGGCAGAGCCTCAAGGACGAGATGGCCCCGCCAC
TTGCAGGAGTACCAGGACCTGCTCAATGTCAAGCTGGCCCTGGACATCGAGATCGCCACCTACAGGAAGCTGCTA
GAGGGCGAGGAGAACCAGGATCACCATTCCCGTGCAGACCTTCTCCAACCTGCAGATTGAGAAACCAGCCTGGAC
ACCAAGTCTGTGTGAGAAGGCCACCTCAAGAGGAACATCGTGGTGAAGACCGTGGAGATGCGGGATGGAGAGGTC
ATTAAGGAGTCCAAGCAGGAGCACAAGGATGTGATGTGAGGCAGGACCCACCTGGTGGCCTCTGCCCCGTCTCAT
GAGGGGCCCCGAGCAGAAGCAGGATAGTTGCTCCGCCCTCTGCTGGCACATTTCCCCAGACCTGAGCTCCCCACCAC
CCCAGCTGCTCCCCCTCCCTCCTCTGTCCCTAGGTGAGCTTGTGCCCCTAGGCTCCGTGAGTATCAGGCCTGCCAG
ACGGCACCCACCCAGCACCCAGCAACTCCAACCTAACAAGAACTCACCCCCAAGGGGCGAGTCTGGAGGGGCATGG
CCAGCAGCTTGCGTTAGAATGAGGAGGAAGGAGAGAAGGGGAGGAGGGCGGGGGGCACCTACTACATCGCCCTCC
ACATCCCTGATTCTGTGTTTATGGAACTGTTGCCAGAGATGGAGGTTCTCTCGGAGTATCTGGGAACTGTGCC
TTTGAGTTTCTCAGGCTGCTGGAGGAAAACCTGAGACTCAGACAGGAAAGGGAAAGGCCCCACAGACAAGGTAGCC
CTGGCCAGAGGCTGTTTTGTCTTTTGGTTTTTATGAGGTGGGATATCCCTATGCTGCCTAGGCTGACCTTGAAC
TCCTGGGCTCAAGCAGTCTACCCACCTCAGCCTCCTGTGTAGCTGGGATTATAGATTGGAGCCACCATGCCAGC
TCAGAGGTTGTTCTCCTAGACTGACCCTGATCAGTCTAAGATGGGTGGGGACGTCTGCCACCTGGGGCAGTCA
CCTGCCCAGATCCAGAAGGACCTCCTGAGCGATGACTCAAGTGTCTCAGTCCACCTGAGCTGCCATCCAGGGAT
GCCATCTGTGGGCACGCTGTGGGCAGGTGGGAGCTTGATTCTCAGCACTTGGGGGATCTGTTGTGTACGTGGAGA
GGGATGAGGTGCTGGGAGGGATAGAGGGGGGCTGCCTGGCCCCCAGCTGTGGGTACAGAGAGGTCAAGCCCAGGA
GGACTGCCCCGTGCAGACTGGAGGGGACGCTGGTAGAGATGGAGGAGGAGGCAATTGGGATGGCGCTAGGCATAC
AAGTAGGGGTTGTGGGTGACCAGTTGCACTTGGCCTCTGGATTGTGGGAATTAAGGAAGTGACTCATCTCTTGA
AGATGCTGAAACAGGAGAGAAAGGGGATGTATCCATGGGGGCAGGGCATGACTTTGTCCATTTCTAAAGGCCTC
TTCCTTGCTGTGTCATACCAGGCCGCCCCAGCCTCTGAGCCCCCTGGGACTGCTGCTTCTTAACCCAGTAAGCCA
CTGCCACACGTCTGACCCCTCTCCACCCCATAGTGACCGGCTGCTTTTCCCTAAGCCAAGGGCCTCTTGGCGTCCC
TTCTTACTCACACACAAAATGTACCCAGTATTCTAGGTAGTGCCCTATTTTACAATTGTAAACTGAGGCACGAG
CAAAGTGAAGACACTGGCTCATATTCTGCGACCTTGGAGGCCGGGTGCTCAGGGCTGACACGTCCACCCAGTGC
ACCCACTCTGCTTTGACTGAGCAGACTGGTGAGCAGACTGGTGGGATCTGTGCCAGAGATGGGACTGGGAGGGC
CCACTTCAGGGTTCTCCTCTCCCCCTCTAAGGCCGAAGAAGGGTCTTCCCTCTCCCCAAGACTTGGTGTCTTTT
CCTCCACTCCTTCCCTGCCACCTGCTGCTGCTGCTGCTGCTAATCTTCAGGGCACTGCTGCTGCCTTTAGTCGCTG
AGGAAAAATAAGACAAATGCTGCGCCCTT

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FIGURE 4881

CCTCTCTCCGGGCCGTGCCTCCAAGATGACAAAGAAAAGAAGGAACAATGGGCGTGCCAAAAAGGGCCGCGGCCA
CCTGCAACCTATTTCGCTGCACTAACTGTGCCCCTGCGTGCCCAAGGACAAGGCCATTAAGAAATTCGTCATTTCG
AAACATAGTGGAGGCCGCAACAGTCAGGGACATTTCTGAAGTGAGCGTCTTCGATGCCTATGTGCTTCCCAAAC
GTATGTGAAGCTACATTACTGTGTGAGTTGTGCAATTCACAGCAAAGTAGTCAGGAATCGATCTCGTGAAGCCCG
CAAGGACCGAACACCCCCACCCCGATTAGACCTGCGGGTGCTGCCCCAGGTCCCCACCAAAGCCCATGTAAGG
AGCTGAGTTCTTAAAGACTGAAGACAGGCTATTCTCTGGAGAAAAATAAAATGGAAATTGTACTT

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FIGURE 4882

MTKKRRNNGRAKKGRGHLQPIRWTNCARCVPKDKGIKKFVIRNIVEAATVRDISEVSVFDAYVLPKLYVKLHYCV
SCAIHSKVVRNRSREARKDRTPPPRFRPAGAAPGPPPKPM

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FIGURE 4883A

GGCACGAGGCTGCTCTCGCAACTCAAGATGCGGACGAGAGTGAGACAGCAGTGAAGCCGCCGGCACCTCCGCTG
CCGCAGATGATGGAAGGGAACGGGAACGGCCATGAGCACTGCAGCGATTGCGAGAATGAGGAGGACAACAGCTAC
AACCGGGGTGGTTTGTAGTCCAGCCAATGACACTGGAGCCAAAAAGAAGAAAAAGAAAAAGAAAGAAAGAA
AAAGGCAGTGAGACAGATTAGCCAGGATCAGCCTGTGAAGATGAACCTTTGCCAGCAGAGAGGATCCAGGAA
ATACAGAAGGCCATTGAGCTGTTCTCAGTGGGTGAGGGACCTGCCAAAACCATGGAGGAGGCTAGCAAGCGAAGC
TACCAGTTCTGGGATACGCAGCCCGTCCCCAAGCTGGGCGAAGTGGTGAACACCCATGGCCCCGTGGAGCCTGAC
AAGGACAATATCCGCCAGGAGCCCTACACCCTGCCCCAGGGCTTCACCTGGGATGCTTTGGACTTGGGCGATCGT
GGTGTGCTAAAAGAAGTGTACACCCTCCTGAATGAGAATATGTGGAAGATGATGACAACATGTTCCGATTGAT
TATCCCCGGAGTTTCTTTTGTGGGCTCTCCGGCCACCCGGCTGGCTCCCCCAGTGGCACTGTGGGGTTCGAGTG
GTCTCAAGTCGGAATTTGGTTGGGTTTATTAGCGCCATCCAGCAACATCCATATCTATGACACAGAGAAGAAG
ATGGTAGAGATCAACTTCCTGTGTGTCCACAAGAAGCTGCGTTCCAAGAGGGTTGCTCCAGTTCTGATCCGAGAG
ATCACCAGGCGGGTTACCTGGAGGGCATCTTCCAAGCAGTTTACACTGCCGGGGTGGTACTACCAAAGCCCGTT
GGCACCTGCAGGTATTGGCATCGGTCCCTAAACCCACGGAAGCTGATTGAAGTGAAGTTCTCCACCTGAGCAGA
AATATGACCATGCAGCGCACCATGAAGCTCTACCGACTGCCAGAGACTCCCAAGACAGCTGGGCTGCGACCAATG
GAAACAAAGGACATTCCAGTAGTGCACCAGCTCCTCACCAGGTACTTGAAGCAATTTACCTTACGCCCGTCATG
AGCCAGGAGGAGGTGGAGCACTGGTTCTACCCCCAGGAGAATATCATCGACACTTTCGTGGTGGAGAACGCAAAC
GGAGAGGTGACAGATTTCTGAGCTTTTATACGCTGCCCTCCACCATCATGAACCATCCAACCCACAAGAGTCTC
AAAGCTGCTTATTTCTTACAACGTTTACACCCAGACCCCTCTTCTAGACCTCATGAGCGACGCCCTTGTCTC
GCCAAAATGAAAGGGTTTGTATGTGTTCAATGCACTGGATCTCATGGAGAACAACCTTCTCGGAGAAGCTCAAG
TTTGGCATAGGGGACGGCAACCTGCAGTATTACCTTTACAATTGGAAATGCCCCAGCATGGGGGAGAGAAGGTT
GGACTGGTGCTACAATAACCAGTCACCAGTGCGATTCTGGATAAAGCCACTGAAAATTCGAACCAGGAAATGGAA
CCCCACCACTGTTGGTCCAATTTTACACACGTGAGAATCCCTGGCAAAGGGAGCAGAACTGAACCGGCTTTACC
AAACCGCCAGCGAAGCTTGACAATTGTATTGCGATGGCGTGGGCTGCGTGACGTCACTCCGGTCTGTCTCTGGT
CTCCGTGTTTTCCAGTTAATTACATCCTCATGCAGCCGTGATCAAGGGAATGTAACCTGCTGAAAACTAGCTCGTG
ATTGGCATATAATGGAGTTAACGGGTGAATAATAAAGTATATATATATATATATATATATATATATATATATAT
ATCTTTTCATGTTCCAAATGTACAAGGATGTTTGGTCTTTAATGAAAAGCTGAATCTAGATCATTCTCAGAAATGA
GGACCCGAGGACAGTGGCAGACAGACGCGTTGGCACAGTTTCATGGTTTCTCCAGAGGAGACATTGGCTTATCAT
GGGGAAGATGGAACAGGCTCAGATCTCATGGGATAGCACGTGGAGCTCTTGGCTGGGGCTGACCCTGGGCAGGGA
CTTTCTGCAGGGCCAGACCTGCCTGCATTCTGAGACAAAGCAATGGACGGTCCGAGAAAGCAGACCTCATTGAT
TGAGTCTTTCTTCCATCCCTTGGCCTGCTCCCTGTAGGAAGTCATCTGCCAACTGATTTAAAAGGGCTCTTT
AGCCAGTTGTTGCCAACCTTATAGGGATGAGTCCCTGTGAGATTTTGCCTTTTCCACTGCCTGGGATGATGCAGT
TTGAAGAGGCCCTTGGACCTCCTTGTAACATCAGGACCTTTGGAGACCATTATCAGTGTAAGCCCTGCTTAGCT
CATCTTAGAGCAAAGAGCCAGCACCTGATGTCCTGGGGTGGCTAGGCAGGAGTGGCGTGGGGCCAATACCCAG
ACCCCTTCAGCCACCAGCCCTGGCCTGTGCCTTCCAACCCATTAGCCATTTCTTGTGTGCCCTTTCCAAGAT
ACAGCCTGCAAGTGGTAGCAAGAAGTGATTAGAGGCAGATCTGGACTTGGCAACAGAAGTGGTTTCCCATCTCCA
TTGTCTGAGTCTGATTTTCGCTGATGCTGTTTTGTGGATTTTGTGGTAGTGATGGTTGTGAGTGTGCCAGTTT
CCAAAACGTAATCAAGCCTCTGGTCACATGGCTGTCGATGTAGGCATTTCTGGAGTGGTGTTCAGCCAAGTGACC
GGGCAAAATTGGGCTGTGAAATTGTACTTCCAGGCTGGATGTAAATTTTGTCTTAGAGAGAAGCAAGTGGTGGG
AAGGAGGTAGCATGACGTGTGGTGTGCGGGTTTCCCTGTGCTGCCCTCACCTCTCCGCTCATACAGGAATGAAGCCT
TAGCCAGGAGGCCAGGCTCAGCCCTGTGCCACTCACCGAAGCCACTTTCTACAGGCCAGCAGGGGCTTGTGTCAG
GCTGTGGGTTTTGGTGTGGTTTTGTGAGAGGCTAATTTCTGCAGAGTTTCCAAAACAGAAAGACATCGTATGCTTGG
GATGGGGGCCGTGCCACCCGTGGGAATGCTGCCGCTCTGCAGACTGCTGCTAGAGCCAGCAACTCCACTAAGGT
GGATTTTCATCAGGGGCCCTGCAGGGCCCTCCCTTTTCCCATTGTTCTGCGCTGCAAATTCAGGCCCCAGCAAT
CGTGAAGTACGTTTGTCTTGAAGTCCAAAGAACTGAGACCAAAGAGCTGCTGTTCTTAGCAAGATGCGCACTG
CATTCCACAGGTGGGAGGAGTCGGAGAGGCAGGGGCTTGGTTTGCAGCCCCACAGACAACAGTTGCACAGTGCCT
CAAGCCCCAGAGTGGCTCACCCTGTCCAGACCTTTGAGGATATCAAAGGACAAAGTGCCCAAGTCTTTCTACCT
TGGGGGAACCTGGAACCTGGAAAGGCTCCCTGTCTAGTCTTGATCTGTTCTGGGCCAGGTCCAGCTTGAGCTG

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FIGURE 4883B

CCTCTGAGATTGTTGGGCTGTGCGGATCTCTGGAGTGAGCTCTGTTTCGGTTGACCCAGGTCATGGAATGGAAACGG
TGAGGCCCCAGTGGCTGTTCTGGAAGAAACAGATCTCCTGGCAAAGGCCCCAGCATCTCCCTCACTGAAACCAGG
TGGCCGGCTCCTCGGACTCTGCTTTATGTTGCGGTGAGAACTCTGCCAGGTGTGCAGGGTTTGGCTTGTGGGCT
GCTTGCTGCTCATCTGATTTTTGTCCAGTAGTCCCTGCGTTCTTCATTCAACCCCTTCTGGGACTTCAGCTCAG
AGAGCACCATCCCGGGGGTCAGGGCCTCCCCACAGGAGCCCTGCAGTGTGGTAGCGCCATGGCTGTCTCAAACCA
AGCAAAGGAAGGACCCTGAGGCCTTACGCTAACCATCCTCGAGCAACTGCTGTTGGAAGGCCTCCCTGGGCCTG
GCCCCACCCTCTGCCACCCAGTCCCTCCAGCTGCCATGTTTCAAAGACGACCTTTACCTCCTGCCTTTGGATTG
ACTCTGCATTTGACCACGGACTCCAGTCTGTGTGTAGGGAGAGAGCTGAGTAGGAGGCCTCCACTCCGGATCGAG
GCCTGTATAGGGCTCGTTTCCCCACACATGCCTATTTCTGAAGAGGCTTCTGTCTTATTTGAAGGCCAGCCCACA
CCCAGCTACTTTAACACCAGGTTTATGGAATAATGTCAGGCCTTCCCCACAACCTCCTGTCTAACTGCTGTGCCCC
CCTACTTGCTGGCTCTCAGAAGCCTAGGGGAGTCCCTGTGGTCCCTGAATTCTTTCCCCAAAGACGACCAGCATTT
AACCAACCTAAGGGCCCAAAGGCCTTGGACAACATGCATGGAGCTGCACTCTAGGAGAAGGAGGGGAACCAGATGT
TAGATCAGGGGAGGGAGCAGGAGTGTCCCTCCCGTCAGTGCTACCCACCTGTGAGGCAGCCTTCTGATGGCCTG
GCCCACCTTCCCCAGAACCAGGGGAGGCCTGAGGCTTCAGTTTTACTCTGCTGCAAAATGAAGGCGGGCCTGCAA
GCCGACTACACCTACGGAGGCTGTTGAGGACAATTCATTCCATTAAATTAAAAAATACTGACTGGCTGGCAGGC
AGGTGCCATGTCTGGGAACAGGGACGGGGGAGCTTCACCTTTTTGTCTTGGCTTTTCTTTGGGCTGTGGGGGGGC
ATCCATTTCAGGGTCGGGGAGGAAATACCAATGCATTGTTGTTCTGCTCAATACATCTCACTTGTTTCTAATA
AAGAAAGCAGCTGAACAAAAAAAAAAAAAAAAAAAAA

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FIGURE 4884

MADESETAVKPPAPPLPQMMEGNGNGHEHCSDCENEEDNSYNRGGLSPANDTGAKKKKKKQKKKKEKGSETDSAQ
DQPVKMNSLPAERIQEIQKAIELFSVGQGPAKTMEEASKRSYQFWDTPVPKLGEEVNTHGPEPDKDNIRQEPY
TLPQGFTWDALDLGDRGVLKELYTLLNENYVEDDDNMFRFDYSPEFLLWALRPPGWLPQWHCGVRVSSRKLVGF
ISAIPANIHIDTEKKMVEINFLCVHKKLRSKRVPVLIREITRRVHLEGIFQAVYTAGVVLKPKVGTCTRYWHR
LNPRKLIEVKFSLSRNMTMQRTMKLYRLPETPKTAGLRPMETKDIPVVHQLLTRYLKQFHLTPVMSQEEVEHWF
YPQENIIDTFVVENANGEVTDFLSFYTLPTSTIMNHPTHKSLKAAYSFYNVHTQTPLLDLMSDALVLAKMKGFDVF
NALDLMENKTFLEKLKFGIGDGNLQYYLYNWKCPSMGAEKVGLVLQ

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FIGURE 4885

TTCGCTCGCCGCTCGCTCAGAGCCGGGGCCGGGCCAGAGCGGGCGCCCGCTGCCCTGTCCCCGCGTGCAGACCC
CGGGCCCCGGCCCCGGCCCCCGCCAAGCCATGCTGTGCGGGCGCTGGAGGCGTTGCCGCCGCCGCCGAGGAGC
CCCCGGTGGCCGCCAGGTTCGAGCCCCAAGTCGCGGGCGCGGTTCGCTCTCCCGTCCCCGCCGACTCCCTCCGATG
GCGGCACCAAGAGGGCCCGGGCTGCGGGCGCTGAAGAAGATGGGCTGACGGAGGACGAGGACGTGCGCGCCATGC
TGCGGGGCTCCCGCTCCGCAAGATCCGCTCGCGCACGTGGCACAAGGAGCGGCTGTACCGGTGCAGGAGGACG
GCCTGAGCGTGTGGTTCCAGCGGGCGCATCCCGCTGCGCCATCGCAGCACATCTTCTTCGTGCAGCACATCGAGG
CGGTCCGCGAGGGCCACAGTCCGAGGGCCTGCGGGCGCTTCGGGGGTGCCTTCGCGCCAGCGCGCTGCCTCACCA
TCGCTTCAAGGGCCGCCGAAGAACCTGGACCTGGCGGGCGCCACGGCTGAGGAAGCGCAGCGCTGGGTGCGCG
GTCTGACCAAGCTCCGCGCGCGCTGGACGCCATGAGCCAGCGCGAGCGGCTAGACCACTGGATCCACTCCTATC
TGCACCGGGCTGACTCCAACCAGGACAGCAAGATGAGCTTCAAGGAGATCAAGAGCCTGCTGAGAATGGTCAACG
TGGACATGAACGACATGTACGCCTACCTCCTCTTCAAGGAGTGTGACCACTCCAACAACGACCGTCTAGAGGGGG
CTGAGATCGAGGAGTTCCTGCGCGGCTGCTGAAGCGGCCGGAGCTGGAGGAGATCTTCCATCAGTACTCGGGCG
AGGACCGCGTGTGAGTGCCCTGAGCTGCTGGAGTTCCTGGAGGACCAGGGCGAGGAGGGCGCCACACTGGCCC
GCGCCAGCAGCTCATTACAGCTATGAGCTCAACGAGACAGCCAAGCAGCATGAGCTGATGACACTGGATGGCT
TCATGATGTACCTGTTGTGCGCGGAGGGGCTGCCCTGGACAACACCCACACGTGTGTGTTCCAGGACATGAACC
AGCCCCTTGCCACTACTTCACTCTTCTTCTCCACAACACCTATCTGACTGACTCCCAGATCGGGGGGCCAGCA
GCACCGAGGCTATGTTAGGGCTTTGCCAGGGATGCCGCTGCGTGGAGCTGGACTGCTGGGAGGGGCCAGGAG
GGGAGCCCGTCATCTATCATGGCCATACCTTCACTCCAAGATTCTTCCGGGACGTGGTCCAAGCCGTGCGCG
ACCATGCTTCACGCTGTCCCTTACCTGTCTATCCCTGGAGAACCCTGCGGGCTGGAGCAGCAGGCTG
CCATGGCCCGCCACCTCTGCACCATCTGGGGGACATGCTGGTGACACAGGCGCTGGACTCCCCAAATCCCGAGG
AGCTGCCATCCCCAGAGCAGCTGAAGGGCCGGGTCTGGTGAAGGGAAAGAAGTTGCCCGCTGCTCGGAGCGAGG
ATGGCCGGGCTCTGTGGATCGGGAGGAGGAGGAGGAGGATGACGAGGAGGAAGAAGAGGAGGTGGAGGCTGCAG
CGCAGAGGCGGCTGGCCAAGCAGATCTCCCCGGAGCTGTGCGCCCTGGCTGTGTAAGTCCACGCCACCCGCTGC
GGACCTTGACCCCTGCCCCCAACGCCCCACAACCTGCCAGGTCAGCTCCCTCAGCGAGCGCAAAGCCAAGAAAC
TCATTGCGGAGGCGAGGAACAGCTTTGTGAGGCACAAAGCCCGCAGCTGACCCGCGTGTACCCGCTGGGGCTGC
GGATGAACTCAGCCAACCTACAGTCCCCAGGAGATGTGGAACCTGGGCTGTGAGCTGGTGGCCTTGAACCTCCAGA
CGCCAGGCTACGAGATGGACCTCAATGCCGGGCGCTTCCTAGTCAATGGGCAGTGTGGCTACGTCTTAAACCTG
CCTGCCTGCGGCAACCTGACTCGACCTTTGACCCCGAGTACCCAGGACCTCCCAGAACCCTCTCAGCATCCAGG
TGCTGACTGCACAGCAGCTGCCCAAGCTGAATGCCGAGAAGCCACACTCCATTGTGGACCCCTGGTGCGCATTG
AGATCCATGGGGTGCCCGCAGACTGTGCCGGGCGAGAGTACTACGTGCTCAACAATGGCTTCAACCCCGCT
GGGGGCGAGACCTGCAGTTCCAGCTGCGGGCTCCGGAGCTGGCACTGGTCCGGTTTGTGGTGGAAGATTATGACG
CCACCTCCCCCAATGACTTTGTGGGCCAGTTTACACTGCCTCTTAGCAGCCTAAAGCAAGGGTACCGCCACATAC
ACCTGCTTTCCAAGGACGGGGCCTCACTGTCACCAGCCACGCTCTTCATCCAAATCCGCATCCAGCGCTCCTGAG
TAGCTGGGACTACAGGCACAGGCCACCACCTGGCTAATGTTTAAATTTATGTAGAGATGGCGGGGGGGCGG
GGGTCTCCCTATGCTGCCCAGGCTGGTCTCGAGCTCCTGACCTCAAGTGATCCTCCTGCCCCAGCATTCCAAAGT
GCTGGGATTACAGGTGTGAGCCACTGCCTGGCTGGCGTAGGTTTGAAGTGTTCATAGAAGAGCCCTGGAGA
AGACAGTAGAATGAGCCTATCTAGTTTAAAAAATAAAGAAGCACGTTGATTTCAAAAAAAAAAAAAAAAAAAAA

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FIGURE 4886

MLCGRWRRRCRRPPEEPPVAAQVAAQVAAPVALPSPPTPSDGGTKRPGLRALKKMGLTEDEDVRAMLGRSRLRKIR
SRTWHKERLYRLQEDGLSVWFQRRIPRAPSQHIFVQHIEAVREGHQSEGLRRFGGAFAPARCLTIAFKGRRKNL
DLAAPTAEAAQRWVRGLTKLRARLDAMSQRERLDHWIHSYLHRADSNQDSKMSFKEIKSLLRMVNVDMNDMYAYL
LFKECDHSNDRLEGAEIEEFLRRLKRPLEEEIFHQYSGEDRVLSAPELLEFLEDQGEEGATLARAQQLIQTYE
LNETAKQHELMTLDGFMYYLLSPEGAALDNHTCTCVFQDMNQPLAHYFISSSHNTYLTDSQIGGPSSTEAYVRAFA
QGCRCVELDCWEGPGGEPVIYHGHTLTSTKILFRDVVQAVRDHAFTLSPYPVILSLENHCGLEQQQAAMARHLCTIL
GDMLVTQALDSPNPEELPSPEQLKGRVLVKGKKLPAARSEDGRALSDREEEEDDEEEEEEVEAAAQRRRLAKQIS
PELSALAVYCHATRLRTLHPAPNAPQPCQVSSLSEKAKKLIREAGNSFVRHNARQLTRVYPLGLRMNSANYSPQ
EMWNSGCQLVALNFQTPGYEMDLNAGRFLVNGQCGYVLKPACLRQPDSTFDPEYPGPPRTTLSIQVLTAQQLPKL
NAEKPHSIVDPLVRIEIHGVPADCARQETDYVLNNGFNPRWGQTLQFQLRAPELALVRFVVEDYDATSPNDFVGQ
FTLPLSSLKQGYRHIHLLSKDGASLSPATLFIQIRIQRS

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FIGURE 4887

CGGCCACGAGGCGGAATCCCTTCTGCTCTCCCAGCGCAGCGCCGCCCGCCCGCCCTCCAGCTTCCCGGACCATG

GCCAACCTGGAGCGCACCTTCATCGCCATCAAGCCGGACGGCGTGCAGCGCGGCCTGGTGGGCGAGATCATCAAG
CGCTTCGAGCAGAAGGGATTCCGCCTCGTGGCCATGAAGTTCCTCCGGGCCTCTGAAGAACACCTGAAGCAGCAC
TACATTGACCTGAAAGACCGACCATTCTTCCCTGGGCTGGTGAAGTACATGAACTCAGGGCCGGTTGTGGCCATG
GTCTGGGAGGGGCTGAACGTGGTGAAGACAGGCCGAGTGATGCTTGGGGAGACCAATCCAGCAGATTCAAAGCCA
GGCACCATTTCGTGGGGACTTCTGCATTTCAGGTTGGCAGGAACATCATTTCATGGCAGTGATTTCAGTAAAAAGTGCT
GAAAAAGAAATCAGCCTATGGTTTAAGCCTGAAGAACTGGTTGACTACAAGTCTTGTGCTCATGACTGGGTCTAT
GAATTAAGAGGTGGACACAACAGCAGTCTCCTTCAGCACGGCGTGGTGTGTCCCTGGACACAGCTCTTCATTCCAT
TGACTTAGAGGCAACAGGATTGATCATTCTTTTATAGAGCATATTTGCCAATAAAGCTTTTGGAAGCCGG

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FIGURE 4888

MANLERTFIAIKPDGVQRGLVGEIIKRFEQKGFRLVAMKFLRASEEHLKQHYIDLKDRPFFPGLVKYMNSGPVVA
MVWEGLNVVKTGRVMLGETNPADSKPGTIRGDFCIQVGRNIIHGSDSVKSAEKEISLWFKPEELVDYKSCAHDWV
YE

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FIGURE 4889

TGCTGCGAACCACGTGGGTCCCGGGCGCGTTTTCGGGTGCTGGCGGCTGCAGCCGGAGTTCAAACCTAAGCAGCTG
GAAGGAACCATGSCCAACTGTGAGCGTACCTTCATTGCGATCAAACCAGATGGGGTCCAGCGGGGTCTTGTGGGA
GAGATTATCAAGCGTTTTGAGCAGAAAGGATTCCGCCTTGTTGGTCTGAAATTCATGCAAGCTTCCGAAGATCTT
CTCAAGGAACACTACGTTGACCTGAAGGACCGTCCATTCTTTGCCGGCCTGGTGAAATACATGCACTCAGGGCCG
GTAGTTGCCATGGTCTGGGAGGGGCTGAATGTGGTGAAGACGGGCCGAGTCATGCTCGGGGAGACCAACCCTGCA
GACTCCAAGCCTGGGACCATCCGTGGAGACTTCTGCATACAAGTTGGCAGGAACATTATACATGGCAGTGATTCT
GTGGAGAGTGCAGAGAAGGAGATCGGCTTGTTGGTTTCACCCTGAGGAACTGGTAGATTACACGAGCTGTGCTCAG
AACTGGATCTATGAATGACAGGAGGGCAGACCACATTGCTTTTACATCCATTTCCCCTCCTTCCCATGGGCAGA
GGACCAGGCTGTAGGAAATCTAGTTATTTACAGGAACTTCATCATAATTTGGAGGGAAGCTCTTGGAGCTGTGAG
TTCTCCCTGTACAGTGTTACCATCCCCGACCATCTGATTAAATGCTTCCTCCAGC

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FIGURE 4890

MANCERTFIAIKPDGVQRGLVGEIIKRFEQKGFRLVGLKFMQASEDLLKEHYVDLKDRPFFAGLVKYMHS GPVVA
MVWEGLNVVKTGRVMLGETNPADSKPGTIRGDFCIQVGRNIIHGSDSVESAEKEIGLWFHPEELVDYTSQAQNW
YE

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FIGURE 4891

GACAACTTGAGCTGAAAGCGAAAACTATGCTGACCAGATTAGCAGACTTGAAGAAAGAGAAGCAGAACTGAAGA
AGGAATATAATGCATTACATCAAAGACACACTGAGATGATCCATAATTATATGGAACATTTAGAAAGAACAAAAC
TTCATCAGCTCTCAGGGAGTGATCAACTAGAATCCACAGCTCATAGTAGAATTAGAAAAGAAGCCCTATATCAT
TAGGAATTTTCCCATTACCTGCTGGAGATGGATTGCTTACACCTGATGCTCAGAAAGGAGGAGAGACCCCTGGAT
CTGAGCAATGGAATTTAGGAATTAAGTCAACCACGTTCTCATACCAGCCTGAAGGATGAGCTTTCTGATGTTA
GCCAAGGCGGATCTAAAGCTACCACTCCAGCATCAACAGCTAATTCAGATGTGGCAACAATTCCTACTGATACTC
CCTTAAAGGAAGAAAACGAAGGATTTGTGAAGGTTACAGATGCGCCAAATAAATCAGAGATAAGCAAACACATTG
AAGTACAGGTAGCCAGGAACTAGAAATGTATCTACTGGCTCTGCTGAAAATGAAGAAAAGTCAGAAGTTCAAG
CAATCATCGAATCTACTCCTGAGCTGGATATGGACAAAGATCTCAGTGGATATAAAGGTTCAAGCACTCCCACCA
AAGGCATAGAGAACAAAGCTTTTGATCGCAATACAGAATCTCTCTTTGAAGAAGTGTCTTCAGCTGGCTCAGGCC
TAATAGGAGATGTGGATGAAGGAGCAGATTTACTAGGAATGGGTGCGGAAGTTGAGAATCTTATATTAGAAAATA
CACAAGTGTGGAACCAAAAATGCTTTGAACATAGTGAAGAATGATTTGATAGCAAAAGTGGATGAAGTACCT
GTGAGAAAGATGTGCTGCAAGGGGAATGGAGGCTGTGAAGCAAGCCAAACTGAACTAGAGGAAAAGAACAGAG
AATTGGAGGAAGAGCTTAGGAAAGCTCGGGCAGAAGCTGAAGATGCAAGGCAAAAAGCAAAAGATGACGATGATA
GTGATATTTCCACAGCCCAGAGGAAACGTTTACTAGAGTAGAAATGGCCCCGTGTTCTCATGGAGCGAAACAGT
ATAAAGAGAGATTGATGGAGCTTCAGGAAGCTGTTTCGATGGACAGAGATGATTCGGGCATCACGAGAAAATCCAG
CCATGCAGGAAAAAAAAGGTCAAGCATTTGGCAGTTTTTCAGCCGACTTTTCAGCTCCTCAAGTAACACGACTA
AGAAGCCTGAACCACCTGTTAATCTGAAGTACAATGCACCCACGTCTCATGTTACTCCGTCCGTCAAGAAAAGAA
GCAGCACCTTATCTCAGCTCCCTGGGGATAAGTCCAAAGCCTTTGATTTCCCTTAGTGAAGAACTGAAGCTAGTT
TAGCCTCACGCAGAGAACAAAAGAGAGAGCAGTATCGTCAGGTAAAAAGCACATGTTTCAAGGAAGACGGTAGAG
TGCAGGCTTTTGGCTGGAGTCTGCCTCAGAAGTACAAACAGGTAACCAATGGTCAAGGTGAAAATAAGATGAAAA
ATTTACCTGTGCCTGTCTATCTCAGACCTCTGGATAAAAAAGATACATCAATGAAGCTGTGGTGTGCTGTTGGAG
TCAATTTATCTGGTGGGAAGACCAGAGATGGTGGTCTGTTGTTGGAGCAAGTGTATTTTACAAGGATGTTGCTG
GTTTGGATACAGAAGGCAGTAAACAGCGAAGTGCCCTCTCAGAGTAGTTTAGATAAGTTAGATCAGGAAGTTAAGG
AACAGCAGAAGGAGTTAAAAATCAAGAAGAATTATCCAGTCTAGTTTGGATCTGTACCAGCACTCATTCCGGCTA
CAAAAGTTCTTATTATTGATGCTGTTCAACCTGGCAACATCCTAGACAGTTTCACTGTTTGCAACTCTCATGTTT
TGTGCATTGCAAGTGTGCCAGGTGCACGAGAAACAGACTACCTGCAGGAGAAGATCTTTCAGAATCTGGTCAGG
TAGACAAAGCATCTTTATGTGGAAGTATGACAAGCAACAGCTCAGCAGAGACAGACAGCCTGTTAGGAGGCATCA
CAGTGGTTGGTTGTTCTGCGAAGGTGTGACGGGAGCTGCCACTTCCCCTAGTACAAATGGTGCTTCTCCAGTGA
TGGATAAACACCAGAAATGGAAGCAGAAAATAGTGAGGTTGATGAAAATGTTCCAACAGCAGAAGAAGCAACTG
AAGCTACAGAAGGGAATGCGGGGTCAGCTGAAGACACAGTGGACATCTCCCAACTGGCGTCTACACAGAGCATG
TCTTTACAGATCCTTTGGGAGTTCAGATCCAGAGACCTCTCCCAAGTGTATCAGTCGAGGTATAATAATGGGT
CATCAACTTAGGCAACTGGGTGAAGTGCACAAATAAAGGAACCAAAATAATCTCAACAGTCAAAAGATTTCCTCA
CTAATTAGTGTACTGTGGTGGATTAAAAGATACCTATTCTTGTGATA

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FIGURE 4892

MIHNYMEHLERTKLHQLSGSDQLESTAHSRIRKERPISLGIFPLPAGDGLLTPDAQKGGETPGSEQWKFQELSOP
RSHTSLKDELSDVSQGGSKATTPASTANSDVATIPDTPLKEENEGFVKVTDAPNKSEISKHIEVQVAQETRNVS
TGSANEKSEVQAI IESTPELDMDKDLGSGYKGSSTPTKGIENKAFDRNTESLFEELSSAGSGLIGDVDEGADLL
GMGREVENLILENTQLLETKNALNIVKNDLIAKVDELTCEDVLQGELEAVKQAKLKLEKNRELEEELRKARAE
AEDARQKAKDDDDSDIPTAQRKRFRVEMARVLMERNQYKERLMELQEAVRWTEMIRASRENPFAMQEKKRSSIWQ
FFSRLFSSSSNTTKKPEPPVNLKYNAPTSHVTPSVKKRSSSTLSQLPGDKSKAFDFLSEETEASLASRREQKREQY
RQVKAHVQKEDGRVQAFGWSLPQKYKQVTNGQGENKMKNLPPVYLRPLDKKDTSMKLWCAVGVNLSGGKTRDGG
SVVGASVFYKDVAGLDTEGSKQRSASQSSLDKLDQELKEQQKELKNQEELSSLVWICTSTHSATKVLIIIDAVQPG
NILDSTVCNSHVLCIASVPGARETDYPAGEDLSESGQVDKASLCGSMTSNSSAETDSLGGITVVGCSAEGVTG
AATSPSTNGASPVMDKPPPEMAENSEVDENVPTAEATEATEGNAGSAEDTVDISQTVYTEHVFTDPLGVQIPE
DLSPVYQSRYNNGSST

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FIGURE 4893A

CTCCGGCGCCCGCTCTGCCCCGCGCTGGGTCCGACCGCGCTCGCCTTCCTTGAGCCGCGCCTCGGCCCCATGGA
CGCCCTGTGCGGTTCCGGGGAGCTCGGCTCCAAGTTCTGGGACTCCAACCTGTCTGTGCACACAGAAAACCCGGA
CCTCACTCCCTGCTTCCAGAACTCCCTGCTGGCCTGGGTGCCCTGCATCTACCTGTGGGTGCGCCTGCCCTGCTA
CTTGCTCTACCTGCGGCACCAATTGTCGTGGCTACATCATCTCTCCACCTGTCCAAGCTCAAGATGGTCTCTGGG
TGTCCTGTGTGGTGCCTCTCTGGGCGGACCTTTTTTACTCCTTCCATGGCCTGGTCCATGGCCGGGCCCCCTGC
CCCTGTTTTCTTTGTCACCCCTTGGTGGTGGGGGTACCATGCTGCTGGCCACCCTGCTGATACAGTATGAGCG
GCTGCAGGGCGTACAGTCTTCGGGGGTCTCATTTATCTTCTGGTTCCCTGTGTGTGGTCTGCGCCATCGTCCCATT
CCGCTCCAAGATCCTTTTAGCCAAGGCAGAGGGTGAGATCTCAGACCCCTTCCGCTTACCACCTTCTACATCCA
CTTTGCCCTGGTACTCTCTGCCCTCATCTTGGCCTGCTTCAGGGAGAAACCTCCATTTTTCTCCGCAAAGAATGT
CGACCCTAACCCCTACCCTGAGACCAGCGCTGGCTTTCTCTCCCGCCTGTTTTCTGGTGGTTACAAAGCTGCT
AAACCTGACCCTCTGCGGGGCTGCCTGCCGGGCTTCACTCCCCCAGGATGGCCATCTATGGCTACCGGCATC
CCCTGGAGGAGAAGGACCTCTGGTCCCTAAAGGAAGAGGACAGATCCCAGATGGTGGTGCAGCAGCTGCTGGAGG
CATGGAGGAAGCAGGAAAAGCAGACGGCAGCAGACAAGGCTTCAGCAGCACCTGGGAAAAATGCCCTCCGGCGAGG
ACGAGGTGCTGCTGGGTGCCCCGGCCAGGCCCGGAAGCCCTCCTTCTGAAGGCCCTGCTGGCCACCTTCGGCT
CCAGCTTCCTCATCAGTGCCTGCTTCAAGCTTATCCAGGACCTGCTCTCCTTCATCAATCCACAGCTGCTCAGCA
TCCTGATCAGGTTTATCTCCAACCCCATGGCCCCCTCCTGGTGGGGCTTCTGGTGGCTGGGCTGATGTTCTCTGT
GCTCCATGATGCAGTCGCTGATCTTACAACACTATTACCCTACATCTTTGTGACTGGGGTGAAGTTTCGTA
GGATCATGGGTGTCTATCTACAGGAAGGCTCTGGTTATCACCCTCAGTCAAACGTGCGTCCACTGTGGGGGAAA
TTGTCAACCTCATGTGAGTGGATGCCAGCGCTTCATGGACCTTGCCCCCTTCTCAATCTGCTGTGGTCAGCAC
CCCTGCAGATCATCCTGGCGATCTACTTCTCTGGCAGAACCCTAGGTCCCTCTGCTCTGGCTGGAGTCGCTTTCA
TGGTCTTGCTGATTCCACTCAACGGAGCTGTGGCCGTGAAGATGCGCGCCTTCCAGGTAAAGCAAATGAAATTGA
AGGACTCGCGCATCAAGCTGATGAGTGAATCCTGGACGGCATCAAGGTGCTGAAGCTGTACGCTGGGAGCCCA
GCTTCTGAAGCAGGTGGAGGGCATCAGGCAGGCTGAGCCCCAGCTGCTGCGCACGGCGGCCTACCTCCACACCA
CAACCACCTTCACTGGATGTGACGCCCTTCTGGTGAACCTGATCACCTCTGGGTGTACGTGTACGTGGACC
CAAACAATGTGCTGGACGCCGAGAAGGCCCTTTGTGTCTGTGTCCTTGTTAATATCTTAAGACTTCCCTCAACA
TGCTGCCCCAGTTAATCAGCAACCTGACTCAGGCCAGTGTGTCTCTGAAACGGATCCAGCAATTCCTGAGCCAAG
AGGAACTTGACCCCAAGAGTGTGGAAGAAAGACCATCTCCCCAGGCTATGCCATCACCATACAGTGGCACCT
TCACCTGGGCCAGGACCTGCCCCCACTCTGCACAGCCTAGACATCCAGGTCCCGAAAGGGGCACTGGTGGCCG
TGGTGGGGCTGTGGGCTGTGGGAAGTCTCCTGGTGTCTGCCCTGCTGGGAGAGATGGAGAAGCTAGAAGGCA
AAGTGCACATGAAGGGCTCCGTGGCCTATGTGCCCCAGCAGGCATGGATCCAGAACTGCACTCTTCAGGAAAACG
TGCTTTTCGGCAAAGCCCTGAACCCCAAGCGCTACCAGCAGACTCTGGAGGCCTGTGCCTTGCTAGCTGACCTGG
AGATGCTGCCTGGTGGGATCAGACAGAGATTGGAGAGAAGGGCATTAACTGTCTGGGGGCCAGCGGCAGCGGG
TCAGTCTGGCTCGAGCTGTTTACAGTATGCGGATATTTCTTGTCTGGATGACCCACTGTCCGCGGTGGACTCTC
ATGTGGCCAAGCACATCTTTGACCACGTATCGGGCCAGAAGGCGTGTGGCAGGCAAGACGCGAGTGTGGTGA
CGACGGCATTAGCTTCTGCCCCAGACAGACTTCATCATTTGTGCTAGCTGATGGACAGGTGTCTGAGATGGGCC
CGTACCCAGCCCTGCTGCAGCGCAACGGCTCCTTTGCCAACTTTCTCTGCAACTATGCCCCGATGAGGACCAAG
GGCACCCTGGAGGACAGCTGGACCGCTTGGAAGGTGCAGAGGATAAGGAGGCACTGCTGATTGAAGACACACTCA
GCAACCACACGGATCTGACAGACAATGATCCAGTCACCTATGTGGTCCAGAAGCAGTTTATGAGACAGCTGAGTG
CCCTGTCTCAGATGGGGAGGGACAGGGTTCGGCCTGTACCCCGAGGACCTGGGTCCATCAGAGAAGGTGCAGG
TGACAGAGGCGAAGGCAGATGGGGCACTGACCCAGGAGGAGAAAGCAGCCATTGGCACTGTGGAGCTCAGTGTGT
TCTGGGATTATGCCAAGGCCGTGGGGCTCTGTACCACGCTGGCCATCTGTCTCCTGTATGTGGGTCAAAGTGGCG
CTGCCATTGGAGCCAATGTGTGGCTCAGTGCCTGGACAAATGATGCCATGGCAGACAGTAGACAGACAACACTT
CCCTGAGGCTGGGCGTCTATGCTGCTTTAGGAATTCTGCAAGGGTTCTTGGTGATGCTGGCAGCCATGGCCATGG
CAGCGGGTGGCATCCAGGCTGCCCCGTGTGTTGCACCAGGCACTGCTGCACAACAAGATACGCTCGCCACAGTCCT
TCTTTGACACCACACCATCAGGCCGCATCCTGAACTGCTTCTCCAAGGACATCTATGTCGTTGATGAGGTTCTGG
CCCCTGTCTATCCTCATGCTGCTCAATTCTTCTTCAACGCCATCTCCACTCTTGTGGTCACTATGGCCAGCACGC
CGCTCTTCACTGTGGTCACTCTGCCCTGGCTGTGCTCTACACCTTAGTGCAGCGCTTCTATGCAGCCACATCAC
GGCAACTGAAGCGGCTGGAATCAGTCAGCCGCTCACCTATCTACTCCACTTTTTCGGAGACAGTGAAGTGGCA

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FIGURE 4893B

GTGTCATCCGGGCTACAACCGCAGCCGGGATTTTGAGATCATCAGTGATACTAAGGTGGATGCCAACCAGAGAA
GCTGCTACCCCTACATCATCTCCAACCGGTGAGAAGCCGCCCTCCCTCGCTCCCTGCTCCTCCAGGAATTCACAGC
AGGCTCTCTGGTGTTTCAGGGTCTTGTCCCTCCTTTCCCTTAAGCAGAAAACCTGGCCCTGCCCTGCCCTGCCCT
ATTCCTCCTCATCTGATCCCCATAGGTGGCTGAGCATCGGAGTGGAGTTCGTGGGGAACCTGCGTGGTGTCTT
TGCTGCACTATTTGCCGTGTCATCGGGAGGAGCAGCCTGAACCCGGGGCTGGTGGGCCTTTCTGTGTCTACTCCTT
GCAGGTGACATTTGCTCTGAACCTGGATGATACGAATGATGTGAGATTTGGAATCTAACATCGTGGCTGTGGAGAG
GGTCAAGGAGTACTCCAAGACAGAGACAGAGGCCCTGGGTGGTGGGAAGGCAGCCGCCCTCCCGAAGGTTGGCC
CCCACGTGGGGAGGTGGAGTTCGGAATTATTCTGTGCGCTACCGGCCGGGCTAGACCTGGTGTGAGAGACCT
GAGTCTGCAATGTGCACGGTGGCGAGAAGGTGGGGATCGTGGGCCGCACTGGGGCTGGCAAGTCTTCCATGACCCT
TTGCTGTTCGCGATCCTGGAGGCGGCAAGGGTGAAATCCGCATTGATGGCCTCAATGTGGCAGACATCGGCCT
CCATGACCTGCGCTCTCAGCTGACCATCATCCCGCAGGACCCCATCCTGTTCTCGGGGACCCTGCGCATGAACCT
GGACCCCTTCGGCAGCTACTCAGAGGAGGACATTTGGTGGGCTTTGGAGCTGTCCACCTGCACACGTTTGTGAG
CTCCAGCCGGGAGGCTGGACTTCCAGTGCTCAGAGGGCGGGGAGAATCTCAGCGTGGGCCAGAGGCAGCTCGT
GTGCTGGCCCCGAGCCCTGCTCCGCAAGAGCCGCATCCTGGTTTTAGACGAGGCCACAGCTGCCATCGACCTGGA
GACTGACAACCTCATCCAGGCTACCATCCGCACCCAGTTTGATACCTGCACTGTCTGACCATCGCACACCGGCT
TAACACTATCATGGACTACACCAGGGTCTGGTCTGGACAAAGGAGTAGTAGCTGAATTTGATTCTCCAGCCAA
CCTCATTGCAGCTAGAGGCATCTTCTACGGGATGGCCAGAGATGCTGGACTTGCCTAAAATATATTCTGAGATT
TCCTCCTGGCCTTTCCTGGTTTTTCATCAGGAAGGAAATGACACCAAATATGTCCGCAGAATGGACTTGATAGCAA
ACACTGGGGGCACCTTAAGATTTTGACCTGTAAAGTGCCTTACAGGGTAACTGTGCTGAATGCTTTAGATGAGG
AAATGATCCCAAGTGGTGAATGACACGCCTAAGGTCACAGCTAGTTTGAGCCAGTTAGACTAGTCCCCGGTCT
CCGATTCCCAACTGAGTGTTATTTGCACACTGCACTGTTTTCAAATAACGATTTTATGAAATGACCTCTGTCT
CCCTCTGATTTTTCATATTTTCCTAAAGTTTCGTTTCTGTTTTTAATAAAAAGCTTTTTCCTCCTGGAACAGAA
GACAGCTGCTGGGTCAGGCCACCCCTAGGAACCTCAGTCTGTACTCTGGGGTGTGCTGCTGAATCCATTAAAAATG
GGAGTACTGATGAAATAAACTACATGGTCAACAGTAAAAAAAAAAAAAAAAAAAA

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FIGURE 4894

MDALCGSGELGSKFWDNSLVHTENPDLTPCFQNSLLAWVPCIYLWVALPCYLLYLRRHCRGYIILSHLSKCLKMV
LGVLLWCVSWADLFYSFHGLVHGRAPAPVFFVTPLVVGVTMLLATLLIQYERLQGVQSSGVLIIFWFLCVVCAIV
PFRSKILLAKAEGEISDPFRFTTFYIHFALVLSALILACFREKPPFFSAKNVDPNPYPETSAGFLSRLFFWWFTK
LLNPDPLRGCLPGFTSPQDGHLLWPASPGGEGPLVPKGRGQIPDGGAAAAGGMEEAGKADGTTQGFSSWEKCLR
RGRGAAGCPAQAPEALLPEGPAGHLRLQLPHQCLLQAYPGPALLHQSTAAQHPDQVYLQPHGPLLVLPGGWADV
PVLHDAVADLTITLLPLHLCDWGEVSYWDHGCHLQEGSGYHQLSQTCVHCGGNCQPHVSGCPALHGPCPLPQSAVV
STPADHPGDLLPLAEPRSLCPGWSRFHGLADSTQRSCGREDARLPGKANEIEGLAHQADE

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FIGURE 4895A

CTCCGGCGCCCGCTCTGCCCGCCGCTGGGTCCGACCGCGCTCGCCTTCCTTGAGCCGCGCCTCGGCCCCATGGA
CGCCCTGTGCGGTTCCGGGGAGCTCGGCTCCAAGTTCTGGGACTCCAACCTGTCTGTGCACACAGAAAACCCGGA
CCTCACTCCCTGCTTCCAGAACTCCCTGCTGGCCTGGGTGCCCTGCATCTACCTGTGGGTCGCCCTGCCCTGCTA
CTTGCTCTACCTGCGGCACCATTGTCGTGGCTACATCATCCTCTCCACCTGTCCAAGCTCAAGATGGTCTGGG
TGTCCTGCTGTGGTGCCTCTCTGGGCGGACCTTTTTTACTCCTTCCATGGCCTGGTCCATGGCCGGGCCCCCTGC
CCCTGTTTTCTTTGTACCCCTTGGTGGTGGGGTCAACATGCTGCTGGCCACCCTGCTGATACAGTATGAGCG
GCTGCAGGGCGTACAGTCTTCGGGGTCTCATTATCTTCTGGTTCTGTGTGGTCTGCGCCATCGTCCCAT
CCGCTCCAAGATCCTTTTAGCCAAGGCAGAGGGTGAGATCTCAGACCCTTCCGCTTACCACCTTCTACATCCA
CTTTGCCCTGGTACTCTCTACCCTCATCTTGGCCTGCTTCAGGGAGAAACCTCCATTTTTCTCCGCAAAGAATGT
CGACCCTAACCCCTACCCTGAGACCAGCGCTGGCTTTCTCTCCCGCTGTTTTTCTGGTGGTTACAAAGATGGC
CATCTATGGCTACCGGCATCCCCGGAGGAGAAGGACCTCTGGTCCCTAAAGGAAGAGGACAGATCCAGATGGT
GGTGCAGCAGCTGCTGGAGGCATGGAGGAAGCAGGAAAAGCAGACGGCAGACACAAGGCTTCAGCAGCACCTGG
GAAAAATGCCCTCCGGCGAGGACGAGGTGCTGCTGGGTGCCCGGCCAGGCCCGGAAGCCCTCCTTCTGAAGGC
CCTGCTGGCCACCTTCGGCTCCAGCTTCCTCATCAGTGCTGCTTCAAGCTTATCCAGGACCTGCTCTCCTTCAT
CAATCCACAGCTGCTCAGCATCCTGATCAGGTTTATCTCCAACCCATGGCCCCCTCCTGGTGGGGCTTCTCTGGT
GGCTGGGCTGATGTTCTGTCTCCATGATGCAGTCGCTGATCTTACAACACTATTACCACTACATCTTTGTGAC
TGGGGTGAAGTTTCGTACTGGGATCATGGGTGTCTATACAGGAAGGCTCTGGTTATCACCACCTCAGTCAAACG
TGCGTCCACTGTGGGGGAAATTGTCAACCTCATGTGAGTGAGTGCCAGCGCTTCATGGACCTTGCCCCCTTCT
CAATCTGCTGTGGTCAGCACCCCTGCAGATCATCCTGGCGATCTACTTCTCTGGCAGAACCTAGGTCCCTCTGT
CCTGGCTGGAGTCGCTTTCATGGTCTTGTGATTCCACTCAACGGAGCTGTGGCCGTGAAGATGCGCGCCTTCCA
GGTAAAGCAAATGAAATTGAAGGACTCGCGCATCAAGCTGATGAGTGAGATCCTGAACGGCATCAAGGTGCTGAA
GCTGTACGCCCTGGGAGCCCAGCTTCTGAAGCAGGTGGAGGGCATCAGGCAGGGTGAGCTCCAGCTGCTGCGCAC
GGCGGCTACCTCCACACCACAACCACTTACCTGGATGTGCAGCCCCCTTCTGGTGACCCCTGATCACCCCTCTG
GGTGATGCTGACGTGGACCCAAACAATGTGCTGGACGCCGAGAAGGCCCTTTGTGTCTGTGCTTGTGTTAATAT
CTTAAGACTTCCCCTCAACATGCTGCCCCAGTTAATCAGCAACCTGACTCAGGCCAGTGTGTCTCTGAAACGGAT
CCAGCAATTCTGAGCCAAGAGGAACTTGACCCCCAGAGTGTGGAAAGAAAGACCATCTCCCCAGGCTATGCCAT
CACCATACAGTGGCACCTTACCTGGGCCCAGGACCTGCCCCCACTCTGCACAGCCTAGACATCCAGGTCCC
GAAAGGGGCACTGGTGGCCGTGGTGGGGCTGTGGGCTGTGGGAAGTCTCCCTGGTGTCTGCCCTGCTGGGAGA
GATGGAGAAGCTAGAAGGCAAAGTGACATGAAGGGCTCCGTGGCCTATGTGCCCCAGCAGGCATGGATCCAGAA
CTGCACTCTCAGGAAAACGTGCTTTTCGGCAAAGCCCTGAACCCCAAGCGCTACCAGCAGACTCTGGAGGCCTG
TGCTTGTAGCTGACCTGGAGATGCTGCCTGGTGGGGATCAGACAGAGATTGGAGAGAAGGGCATTAACTGTG
TGGGGGCCAGCGGCAGCGGGTCAGTCTGGCTCGAGCTGTTTACAGTGATGCCGATATTTTCTTGTGGATGACCC
ACTGTCCGCGGTGACTCTCATGTGGCCAAGCACATCTTTGACCACGTATCGGGCCAGAAGGCGTGTGGCAGG
CAAGACGCGAGTGTGGTGACGCACGGCATTAGCTTCTGCCCCAGACAGACTTCATCATTGTGCTAGCTGATGG
ACAGGTGTCTGAGATGGGCCCTTACCCAGCCCTGCTGCAGCGCAACGGCTCCTTTGCCAACTTTCTCTGCAACTA
TGCCCCCGATGAGGACCAAGGCCACCTGGAGGACAGCTGGACCGCTTGAAGGTGCAGAGGATAAGGAGGCACT
GCTGATTGAAGACACACTCAGCAACCACACGGATCTGACAGACAATGATCCAGTCACCTATGTGGTCCAGAAGCA
GTTTATGAGACAGCTGAGTGCCCTGTCTCAGATGGGGAGGGACAGGGTCGGCCTGTACCCCGGAGGCACCTGGG
TCCATCAGAGAAGGTGCAGGTGACAGAGGCGAAGGCAGATGGGGCACTGACCCAGGAGGAGAAAGCAGCCATTGG
CACTGTGGAGCTCAGTGTGTTCTGGGATTATGCCAAGGCCGTGGGGCTCTGTACCACGCTGGCCATCTGTCTCCT
GTATGTGGGTCAAAGTGCGGCTGCCATTGGAGCCAATGTGTGGCTCAGTGCTGGACAAATGATGCCATGGCAGA
CAGTAGACAGAAACAACACTTCCCTGAGGCTGGGCGTCTATGCTGCTTTAGGAATTCTGCAAGGGTTCTTGGTGAT
GCTGGCAGCCATGGCCATGGCAGCGGGTGGCATCCAGGCTGCCCGTGTGTTGCACCAGGCACTGCTGCACAACAA
GATACGCTCGCCACAGTCCTTCTTTGACACCACACCATCAGGCCGATCCTGAAGTGTCTTCCAAGGACATCTA
TGTCGTTGATGAGGTTCTGGCCCTGTCTATCCTCATGCTGCTCAATTCTTCTTCAACGCCATCTCCACTCTTGT
GGTCATCATGGCCAGCACGCCGCTCTTCACTGTGGTCTCCTGCCCTGGCTGTGCTCTACACCTTAGTGCAGCG
CTTCTATGCAGCCACATCACGGCAACTGAAGCGGCTGGAATCAGTCAGCCGCTCACCTATCTACTCCACTTTTC
GGAGACAGTGAAGTGGTGCCAGTGTATCCGGGCCTACAACCGCAGCCGGGATTTTGAATCATCAGTGATACTAA

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FIGURE 4895B

GGTGGATGCCAACCAGAGAAGCTGCTACCCCTACATCATCTCCAACCGGTCAGAAGCCGCCCTCCCTCGCTCCCTG
CTCCTCCAGGAATTCACAGCAGGCTCTCTGGTGTTCAGGGTCCTTGTCCTCCTTTCCCCTAAGCAGAAAACCTGG
CCCTGCCCTGCCCTGCCCATTTCTCTCTCATCTGATCCCCCATAGGCGGCTGAGCATCGGAGTGGAGTTCGTG
GGGAAC TGCGTGGTGCTCTTTGCTGCACTATTTGCCGTATCGGGAGGAGCAGCCTGAACCCGGGGCTGGTGGGC
CTTTCTGTGTCTACTCCTTGCAAGGTGACATTTGCTCTGAACTGGATGATACGAATGATGTCAGATTTGGAATCT
AACATCGTGGCTGTGGAGAGGGTCAAGGAGTACTCCAAGACAGAGACAGAGGCGCCCTGGGTGGTGGAGGCAGC
CGCCCTCCCGAAGGTTGGCCCCACGTGGGGAGGTGGAGTTCGGGAATTATTCTGTGCGCTACCGGCCGGGCCTA
GACCTGGTGCTGAGAGACCTGAGTCTGCATGTGCACGGTGGCGAGAAGGTGGGGATCGTGGGCCGCACTGGGGCT
GGCAAGTCTTCCATGACCCTTTGCCGTTCGCGATCCTGGAGGCGGCAAAGGTTGAAATCCGCATTGATGGCCTC
AATGTGGCAGACATCGGCCCTCCATGACCTGCGCTCTCAGCTGACCATCATCCCGCAGGACCCCATCCTGTTCTCG
GGGACCCCTGCGCATGAACCTGGACCCCTTCGGCAGCTACTCAGAGGAGGACATTTGGTGGGCTTTGGAGCTGTCC
CACCTGCACACGTTTGTGAGCTCCCAGCCGGCAGGCTGGACTTCCAGTGCTCAGAGGGCGGGGAGAATCTCAGC
GTGGGCCAGAGGCAGCTCGTGTGCTGGCCCGAGCCCTGCTCCGCAAGAGCCGCATCCTGGTTTTAGACGAGGCC
ACAGCTGCCATCGACCTGGAGACTGACAACCTCATCCAGGCTACCATCCGCACCCAGTTTGATACCTGCACTGTC
CTGACCATCGCACACCGGCTTAACACTATCATGGACTACACCAGGGTCCTGGTCCTGGACAAAGGAGTAGTAGCT
GAATTTGATTCTCCAGCCAACCTCATTGCAGCTAGAGGCATCTTCTACGGGATGGCCAGAGATGCTGGACTTGCC
TAAAATATATTCCTGAGATTTCTCCTGGCCTTTCTGGTTTTTCATCAGGAAGGAAATGACACCAAATATGTCCG
CAGAATGGACTTGATAGCAAACACTGGGGGCACCTTAAGATTTTGACCTGTAAAGTGCCTTACAGGGTAACGTG
GCTGAATGCTTTAGATGAGGAAATGATCCCCAAGTGGTGAATGACACGCCTAAGGTCACAGCTAGTTTGAGCCAG
TTAGACTAGTCCCCCGGTCTCCCGATTCCCAACTGAGTGTATTATTTGCACACTGCACTGTTTTCAAATAACGATTT
TATGAAATGACCTCTGTCTCTCTGATTTTTTCATATTTTCTAAAGTTTTCGTTTTCTGTTTTTAATAAAAAGC
TTTTTCTCTCTGGAACAGAAGACAGCTGCTGGGTGAGGCCACCCCTAGGAACTCAGTCTGTACTCTGGGGTGCT
GCCTGAATCCATTAAAAATGGGAGTACTGATGAAATAAACTACATGGTCAACAGTAAAAAAAAAAAAAAAAAAAA

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FIGURE 4896

MDALCGSGELGSKFWDSNLSVHTENPDLTPCFQNSLLAWVPCYILWVALPCYLLYLRRHHCRGYIILSHLSKLMV
LGVLLWCVSWADLFYSFHGLVHGRAPAPVFFVTPLVGVMTLLATLLIQYERLQGVQSSGVLIIFWFLCVVCAIV
PFRSKILLAKAEGEISDPFRFTTFYIHFALVLSLILACFREKPPFFSAKNVDPNPYPETSAGFLSRLFFWWFTK
MAIYGYRHPLEEKDLWSLKEEDRSQMVVQQLLEAWRKQEKQTARHKASAAPGKNASGEDEVLLGARPRPRKPSFL
KALLATFGSSFLISACFKLIQDLSFINPQLLSILIRFISNPMAPSWWGFLVAGLMFLCSMMQSLILQHYYHYIF
VTGVKFRGTGIMGVIYRKALVITNSVKRASTVGEIVNLMSVDAQRFMDLAPFLNLLWSAPLQIILAIYFLWQNLGP
SVLAGVAFMVLLIPLNGAVAVKMRAFQVQMKLKDRIKLMSEILNGIKVLKLYAWEPSFLKQVEGIRQGELQLL
RTAAYLHTTTTTFTWMCSPFLVTLITLWVYVYVDPNNVLDAEKAFVSVSLFNILRLPLNMLPQLISNLTQASVSLK
RIQQFLSQEELDPQSVERKTIISPGYAITIHSGTFTWAQDLPPTLHSLDIQVPKGALVAVVGPVGCCKSSLVSALL
GEMEKLEGKVMKGSVAYVPQQAQWIQNCTLQENVLFKALNPKRYQQTLEACALLADLEMLPGGDQTEIGEKGIN
LSGGQRQVSLARAVYSDADIFLLDDPLSAVDSHVAKHIFDHVIGPEGVLAGKTRVLVTHGISFLPQTDFFIIVLA
DGQVSEMGPYPALLQRNGSFANFLCNYPDEDQGHLEDSWTALEGAEDKEALLIEDTLNHTDLTDNDPVTYVVQ
KQFMRQLSALSDDGEGQGRPVPRRHLGPSEKVQVTEAKADGALTQEEKAAIGTVELSVFWDYAKAVGLCTTLAIC
LLYVGQSAAGANVWLSAWTNDAMADSRQNNLSRLGVYAALGILQGLVMLAAMAMAAGGIQAARVLHQALLH
NKIRSPQSFFDTTPSGRILNCFSKDIYVDEVLPVILMLLNSFFNAISTLVVIMASTPLFTVVILPLAVLYTLV
QRFYAATSRQLKRLESVSRSPYSHFSETVTGASVIRAYNRSRDFEII SDTKVDANQRSCYPYIISNRSEAASLA
PCSSRNSQQALWCSGSLSLSPKQKTGPALPLPHFLLI

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FIGURE 4897

GTGCTGCCTGGCGCTGGCTAGGAGGCAAACGCACGCGGGAAGAGCTGCTACCCATTCCAGGGACCCTGCCGCTGC
CCCTCTGAGGGGTCTGCACCTCCTGGGAGCAGGTGGGTCTCTGGGACGAGGGTCCATGGTGGATGGCTCTGGAGA
CGTCCCCGAGGCTGTGCCGTCCCGCTGCTGCACAGGTCGGAGGGTCACCGCAGAGGCTACTCGGGCTGGGGCTGG
GGCCGAGGGAGCCCCGACTGGAGCCCCATGTGGAACCAAGGATGCAGCTGCTCTGCTAACACGGCAGCCCCATCC
TTCAAGACTGTGACCTCGCCACAGTGGCCCTCAGCCCTCCACCTCCGGCGGGGGCGAGGGCCACCCACCTCCAAG
TCTCCAGCCATGACGACCTCCGCACCTCCGGCGCCAGGTGAAGAACATCGTGCACACTACTCCGAGGCAGAAATC
AAGGTGCGCGAGGGCCACCAGCAATGACCCCTGGGGCCCCCTAGTTGCTCATGTCCGAGATCGCTGACCTGACC
TTCAACACAGTGGCCCTTACCAGAGTCATGGGCATGCTGTGGCGGGCGCTCAATGACAGCGGCAAGAATGGCGG
CACGTGTACAAGGCTCTAACATTGCTGGACTACCTGCTCAAGACGGGCTCCGAGCGGGTGGCCACCAGTGCCGC
GAGAACCTCTACACCATCCAGACACTCAAGGACTTCCAGTACATCGACCGCGACGGCAAGGACCAGGGCGTCAAC
GTGCGCGAGAAGGTCAAGCAGGTGATGGCCCTGCTCAAGGATGAGGAGCGGCTGCGGCAGGAGCGAACCCACGCC
CTCAAGACCAAGGAGCGCATGGCACTGGAGGGCATCGGCATTGGCAGTGGGCAGCTGGGCTTCAGCCGCCGCTAC
GGCGAGGACTACAGCCGCTCCCGGGGCTCCCCGCTCCTCTACAACCTCCTCTCTTCGTACCCCGCTATACCTCC
GACCTGGAGCAGGCCCCGGCCTCAGACGTCAGGGGAAGAGGAACGTCAGCTGCAGCTGGCCCTCGCCATGAGCCGT
GAGGAGGCAGAGAAGCCTGTCCCCCAGCCTCCACAGGGACGAGGACCTGCAGCTGCAGCTGGCTCTGCGCCTG
AGCCGGCAGGAGCACGAGAAGGAGGTGAGGTCTTGGCAGGGTGATGGCTCCCCATGGCCAATGGTGCAGGGGCC
GTGGTCCACCATCAGCGGGACAGAGAGCCTGAGAGAGAAGAGAGAAAGGAGGAGGAGAAGCTAAAAACCAGCCAG
TCCTCCATCCTGGACTTGGCTGACATCTTCGTACCTGCCCTGGCCCCGCCCTCCACACACTGCTCTGCTGACCCA
TGGGACATCCCAGGTTTTAGGCCGAACACAGAGGCCAGTGGATCCTCCTGGGGGCCTTCTGCAGACCCCTGGTCT
CCGATCCCCCTCAGGAACCGTCCTGTCCCGAAGCCAGCCCTGGGATCTGACTCCCATGCTCTCCTCCTCTGAGCCC
TGGGGCAGGACCCAGTGCTGCCTGCTGGGCCCCCACCACAGACCCCTGGGCCCTGAACCTCTCCCCACCACAAA
CTCCCCAGCACTGGGGCTGACCCTTGGGGAGCCTCCCTGGAGACCTCCGACACACCTGGTGGTGCCTCGACCTTT
GACCCATTTGCCAAACCTCCAGAATCCACAGAGACCAAGGAGGGGCTGGAGCAGGCCCTGCCCTCTGGGAAGCCC
AGCAGCCCTGTGGAGCTGGACCTGTTTGGAGACCCAGCCCCAGTTCCAAGCAAAATGGCACGAAGGAGCCAGAT
GCCCTGGACCTGGGCATACTAGGGGAAGCACTAACCAGCCAAGCAAGAGGCCCGAGCTTGCCGGACTCCCGAG
TCCTTCCTGGGTCCCTCAGCTTCCTCCTTGGTCAACCTTGACTCGTTGGTCAAGGCACCCCAAGTTGCAAAGACC
CGGAACCCCTTCCTGACAGGTCTCAGCGCTCCGTCCCCACCAACCCGTTCCGGCGCGGGCGAGCCGGGCAGGCCG
ACGCTAAACCAGATGCGCACCGGCTCGCCGGCGCTGGGCCTGGCAGGCGGGCCTGTGGGGGCGCCCTGGGCTCC
ATGACCTACAGCGCCTCTCTGCCCCCTCCCGCTCAGCAGCGTGCCAGCTGGCTTGACCCCTCCCCGCTCGGTTAGC
GTCTTCCCGCAGGCCGGAGCCTTCGCACCGCAGCCGCTGCTGCCACGCGGAGCTCAGCCGGGCGCGGCCCCCCG
CCCCCGCAGACCGGCACCAACCCCTTCCTCTGAGCCCCGCCCGTCCCATACCGGCCCTGCGCCTGCGCCGGACGC
TCCGCGGCCCGCCTCCGGACCCGGGGCTGGGCGGGGCGCCGGTGCTAGTGGAACGCCGAGCCAGTGCGCGCTGG
TATCCCGCGGGCTCTGGAAGCTGGACGCGGACCAGGCCCGGGAGCTAGAACTGAACGCCCCGATAATAAAG
ACTGGAACCCCTCGTTCTCAGCTCTACCAAGTGGACTTTTTGCGGGGTGTGGCGGCCGGGTCTCGACCACAGCGT
GGATCACCGGCTGTTTAGGAACTGCAGCTGCACAACGTGGGGTGCAAACTGCCCCGCTTCCTTTACAGCTCTT
CTCAACCCCTACCTCCATCCCCCGTCACCCAGGCACCTTCGCTTCAGATGCTGCCAGGCTGTCACTCAATTGCG
TCATTTCAATTCATTTATCACACATGGGCACTGGGGTTGGGCTAACAGCAAGAGACAATAGGCCTTTGTTCTTATT
TATTGGGTACTGCTTACGTGCTAAGCAGATCAGTTTATTTAATGCTTGCAACGACTCTCTGAGGTAGAAAATATT
GTTAATTCCGTTACAGGATCCCGGCTACATAATCTGTGGGGCTCAATACAAAATAAAAAATGAGGGGCTCCTTGTT
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FIGURE 4898

GTGATCCCTGCGCGCGTCTCCTGCTCGGGTCAGTGCGCCGCGCTGCGCTGGGCGCCATGCGCGCTCCCCGGAGCCC
GGGCTCGCGGGCTGGGCGGCAGCAGCCAGAGCGGCCAGAGGCGCCGCGCTGGAGAACGCAGGAGGGTCCCCGA
GTCCTGAGCCTGCGGGCCGGCGCGCGGCGCTTTACGTACACTGGCCTTACTGCGAGAAGCGCTGCAGTTACTGCA
ACTTCAACAAGTACATCCCTCGCCGCCTGGAGGAGGCTGCCATGCAGAAGTGTCTGGTGACCGAAGCTCAGACGC
TGCTGCGGCTCAGCGGGGTGCAACGGGTGGAGTCTGTGTTCTTTGGTGGGGGACCCCCAGTCTAGCCAGTCCCC
ACACGGTGGCTGCTGTCTTGAGGGCTGTGGCACAGGCAGCCACCTGCCTGCAGACTTGAAGTCACATTGGAGG
CTAATCCTACTTCAGCTCCGGGCTCCAGACTGGCAGAGTTCGGGGCAGCAGGGGTTAACAGGTTGTCTATAGGCC
TCCAGTCCCTAGATGACACTGAGCTCCGGCTGTTGGGACGGACGCACTCGGCCGCGATGCTCTGCGGACGCTGG
CAGAGGCCCCGGCGCCTCTTTCCCGGCGCGTGTCTGTAGACTTGATGCTGGGGCTGCCGGCACAGCAGGTGGGGC
CGTGGCTTGGGCAGCTGCAGGAAGTGTGCAACACTGTGATGACCACCTCTCCCTCTACCAGCTGTCCCTGGAGC
GGGGCACCGCACTCTTCGCCCAGGTGCAGCGGGGTGCCCTTCCAGCCCCGAGCTCGCAGCTGAGATGT
ACCAGAGGGGCGGGGCTGTCTTCGGGAGGCTGGCTTCCACCAGTATGAGGTCTCCAACCTTTGCCCGGAATGGGG
CGCTCAGTACCCACAATTGGACTTACTGGCAGTGTGGTCAGTACCTTGGCGTTGGGCCTGGGGCCCATGGACGAT
TTATGCCCCAGGGGGCTGGAGGCCACACCGGGAGGCTCGGATCCAGACACTGGAGCCTGACAACCTGGATGAAGG
AGGTGATGCTGTTTGGCCATGGCACCCGGAAGCGTGTCCCCCTGGGCAGGCTGGAGCTGCTGGAGGAAGTTTGG
CCCTGGGGCTACGCACCGATGTGGGGATCACTCACCAGCACTGGCAGCAGTTTGGAGCCCCAGCTGACCCTGTGGG
ATGTGTTTGGAGCGAACAAGGAGGTGCAGGAGCTGCTGGAGCGGGGCTACTGCAGCTGGATCACAGGGGTCTTC
GGTGTTCCTGGGAGGGTCTGGCTGTGCTGGACTCTCTCTTGCTGACCCTCCTGCCTCAGCTCCAAGAAGCCTGGC
AGCAGAGAACCCCCCTCCCCGTGCCAGGAGGATGACAAAAATGTTCTGTGTTCCAGGGTAATGCCAGGTGGGTT
TTGAGAGCTGGGTCGGTACTGCAGACATCTCTTCTCCGTTGTGCGGGTGCCGTCTCTGCTCCTTGTGGTTATTGCT
CAGCCCTGGCATCCCCAGGGGAATGGCAGCAGTGAGGTAGATGGGAGGACATTTCTGGTCAGGGAACTGGCATCC
CATTAGCATCTCAGGACTCACAGGCCAACATGTGTTCCATGGCTGGGAATTGCCTACCACCCACATCAGCTTCT
GTTTACCTTTTTGGCATCAAATAATGAACAGTGTGTTGGAAATCTTTCTACAGGCAATTACCTCCCCAAGAGAAGC
CTTCCTTATTTTGGAGTAAGGTCCCTAAGATAGCTGGATGAATCAGGAAAACCATGTCCCTCTAGGTATTATTAA
TATTAGCAGGAAGGGATCTACTATAGGAATGAAGTATTTATAAACCCTGAAAGGGATAGAGAAGTGAACATTGG
AGAAAGCCAGTAGCAACTGTGAGAAATCAGCAACTTGCAGGAGGCACAGAAAACCTCCTGCTGATGGTCTCAGCTT
CCAGCAGCACAAAAGCAGATGATGTACTGGAAAATGCTCAGAAGATGCTACAAAACCTCATGCCTACTGTCTGCC
ACTGCTGGAGAAGGAATCATGGTTTCTAGAAAGTGCCTCTCATTAGTGGACTTTAAAGCAAATCCTGGCTGGCAGG
AAATTCTGAGGAATATAGCTCTTAGGCTTCCAGCCTCTACCATGCAGGAGAGAACACAGAAGGACTGATGTATGT
TGGTGGATCCATGTATGTGTCCAGCACAGCGGCTGCTGGACTCTGAGAACTGGGAAAGATCAGAGCAAGCCTTG
CCTCTTATCTTCGGGAAACCAGAATATGTTTGGGGTGGTAGGAGCCACACAGACTCTTCTGAGCCCCCTCACTCA
CTTCCTTCCCCCTGTGCCTTTCCTTTGAGAGTGAAGGTGGGTGGAGTTGACCAGAGAAAGGGGAGAGAATTCCGGG
AAAGACCCAAAGTGTTTGTAAATCTTCTTTGTCTTTTACCTACAGAAATGGTCACATGGTTCTATTTAAATAGC
CTAATAAACACATCTGGAGCCTGT

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FIGURE 4899

MALPGARARGWAAAARAAQRRRRVENAGGSPSPEPAGRRRAALYVHWPYCEKRCSYCNFNKYIPRRLEEAAMQKCL
VTEAQTLRLRLSGVQRVESVFFGGGTPSLASPHTVAAVLEAVAQAHL PADLEVTL EANT SAPGSRLAEFGAAGV
NRLSIGLQSLDDTELRL LGRTHSACDALRTLAEARRLFPGRVSVDLMLGLPAQQVGPWL GQLQELLHHCDDHLSL
YQLSLERGTALFAQVQRGALPAPDPELAAEMYQRGRAVLREAGFHQYEVS NFARNGALSTHNWTYWQCGQYLGVG
PGAHGRFMPQGAGGHTREARIQTLEPDNWMKEVMLFGHGTRKRVPLGRLELLEEVLALGLRTDVGITHQHWQQFE
PQLTLWDVFGANKEVQELLERGLQLDHRGLRCSWEGLAVLDSLLLTL LPQLQEAWQQRTPSPVPGG

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AGTGTAAAGCAGTGTGCAAAACAAGGTGTTTACAGACACATGAAGGCCGTGCAGGCAGCTCAGGAGCGGGGAGGCAGC
GGCGGCTGGAAGTAGAACGTGAGGCAGAGAAGAAGCGTGTAGGCTAAGCAGCGAGCTAAGGAAGCTCAGGAGCGGG
AACTGCGGAAGCGGGAGAAGGCGGAAGAGAAGGAGCGCCGGAGAAAGGAGTATGATGCCCTCAAAGCAGCCAAGC
GGGAGCAGGAGAAGAAACCTAA GAAGGAAGCAAATCAGGCCCCGAAAATCTAAGTCTGGCTCCCGTCCCGCGAAGC
CACCACCCCGGAAGCACACTCGTTTCTGGGCTGTGCTGAAGCTGCTGCTGCTGCTGCTGCTATTTGGTGTGGCGG
GAGGGCTGGTTGCTTGTGCGGTGACAGAGCTGCAGCAGCAGCCCTCTGCACCAGCGTGAACACCATCTATGACA
ATGCGGTCCAGGGTCTACGCCGCCATGAGATCCTCCAGTGGGTCCCTTCAGACCGACTCTCAGCAGTGAAGCTTGT
CCCAGCACCTGCTGCCCTCCAGCCTTGGAGTTTGGATTCCATGGAATTGGGTTCTGCTGGACACAACCTCTTTT
TAGCATCAGACCTACCTGCCATCATCAAATGGCTGCAGATTGGTACATGAGACCTCCTCTTTGTAGGACTTCTTC
ATTCCTTAGTCAGGGTTCCCTGAAGGAATGAGGAGAAATGGGAGGTGGCGGGGGGGCGTGGGGGGCAGTTACCTG
CATGCCTAAAGGAGTAGGCTTGGGGGTGGGGAGAGAGAAAACATAGCCTTTTCTAGTTGTTATATAAAGCTGTGT
AAAGGCAAGGCTCGTTTTCTACTAAATGGTCAGCTGTCACTACATTTATACTTTTGATGCCACAAACCTTTTCAT
TCCTCCCTGGGAATCAGGGTAGATCAGGAGGAACCTGGGGGGGACTAGAACACCACGCTCAGTAAATCCAGTCTAA
ACTGGGAGGTAGGGGTATTCTGTTTTTCTTTAGGACCTCAGAGATGTAAGCATTTTAGCAGCCACACAAAATCTC
TGGCTATGAAAGGGACTTCATGACCATCCAGTCCAATATAACACTTGCAGACAGAGAAACTGAGGTCTTCCATGA
CTTGCCCTAGTCTCCCAGCTAGTTTGGGCAAAACTGGATTCCCACCTCTGGTATTCTTTCTCCCTTTACATCAT
TTCCCTCCTTTATAATGTCTGAGAGACCAGAACTCACACCAGAATCGATTATTCCTCAGGTGAAGCATAGACTC
TTTCATGGTAGACAGATTTACGACTCAGAGATAGAAATCTCTTGCTATCATCAGGTACGGGCAGCTCCTGTGG
AGTCTTGCCCAACTTATGTGGCTTCCATAAAATGGCAACAGTCCAGGCTCCTTGCCTAATTTTAGAGCATTAACT
CCCTAATTGCCAGTAAGCAAGGAGGTGGATCTCTGCAAACCTACACTGTCTATGACAGCTCTAGTTGTACTTGGT
GTGACTAAATACCTCAAAGGCAACCTGCTTCTGCAGGTTTTGAAGTGTGAGCTTCATAAGACACTGAGGTTTAGA
ATTGTTTGATTCTAGACCATAACTGAAGGGCATAAATGGAAAACAGGATATGAAGGGAAACAAGTAGCATCATGGA
GCTGAAAAGTGGTGCATACCCCAATGGCTAGCACAAACAAGGATCACACTGTCCATTCTCTTGCTGCTAAATTA
AGCATTTCTTGCCCTCCTTTGCTTTCATCTTTTACAAACAGCTGGATAGAGGGATCAGAAATGACTGTGTCATGGT
GCTCATTCACTGCAAACCTCCAGTTGCAAGCTCCTTGGCTCCCCGGAGGGAGCAAGAAATCTCATAGTTTACAGAGA
CACAGAGGGCCTTTTAGCCCTAATGACCTTTTGGATGGGACTGCAACTCATGACTATCCTGATATTGGAAGAAAG
GACTTTGTAAATCTTCTCCCCCATAGCTCTGCTGCGTAGGTTACATCTTACTCAGAATCACTACACATTCCCTT
AGTCTTCTCTCAAGCTCCAGAGCCATTGGTACAAATGCTTTATTGAACTAAATACATAATACACACAATGAGAT
GAAGACAATATAGAAGTCCGCATAGTCATCATAATCCCGTTCCCTTGGCCGGTTGAGGCAGCTCAGTGGCTGAGCC
CAGTCAAGCCAACCCGCAGCTTCACTCAGACTTCAAGATTTGATGCTAATCTTTTGGATTCTACAGTTATTA
AATAAGTGCTGAGTGGACAAAAA
AAAAAAAAAAAAAAAAAAAA

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FIGURE 4901

MKAVQADQERERQRRLEVEREAEKKREAKQRAKEAQERELRKREKAEKERRRKEYDALKAARKREKPKKEAN
QAPKSKSGSRPRKPPPRKHTRSWAVLKLLLLLLLLFGVAGGLVACRVTELQQQPLCTSVNTIYDNAVQGLRRHEIL
QWVLQTDSSQ

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FIGURE 4902A

AGGTGAACAGGTCTCAGCCCCAGCTCCGCGCCCTCAGCGCTCTCGCCGGGACCCCGCTTCCGCTGGCAGCCAT
GGGCCCCGGCCCCAGCCGCGCGCCCCGCGCCCCACGCCTGATGCTCTGTGCGCTCGCCTTGATGGTGGCGGCCGG
CGGCTGCGTCTGCTCCGCTTCAACCTGGATACCCGATTCTTGGTAGTGAAGGAGGCCGGGAACCCGGGCAGCCT
CTTCGGCTACTCGGTGCCCCCTCCATCGGCAGACAGAGCGGCAGCAGCGCTACCTGCTCTGGCTGGTGGCCCCCG
GGAGCTCGCTGTGCCCCGATGGCTACACCAACCGGACTGGTGTGTGTACCTGTGCCACTCACTGCCACAAGGA
TGACTGTGAGCGGATGAACATCACAGTGAAAAATGACCCTGGCCATCACATTATTGAGGACATGTGGCTTGGAGT
GACTGTGGCCAGCCAGGGCCCTGCAGGCAGAGTTCTGGTCTGTGCCACCGCTACACCCAGGTGCTGTGGTCAGG
GTCAGAAGACCAGCGGCGCATGGTGGGCAAGTGCTACGTGCGAGGCAATGACCTAGAGCTGGACTCCAGTGATGA
CTGGCAGACCTACCACAACGAGATGTGCAATAGCAACACAGACTACCTGGAGACGGGCATGTGCCAGCTGGGCAC
CAGCGGTGGCTTACCCAGAACACTGTGTACTTCGGCGCCCCCGGTGCCTACAAC TGAAAGGAAACAGCTACAT
GATTACGCGCAAGGAGTGGGACTTATCTGAGTATAGTTACAAGGACCCAGAGGACCAAGGAAACCTCTATATTGG
GTACACGATGCAGGTAGGCAGCTTCATCTGCACCCCAAAAACATCACCATTTGTGACAGGTGCCCCACGGCACCG
ACATATGGGCGCGGTGTTCTTGTGAGCCAGGAGGCAGGCGGAGACCTGCGGAGGAGGCAGGTGCTGGAGGGCTC
GCAGGTGGGCGCCTATTTTGGCAGCGCCATTGCCCTGGCAGACCTGAACAATGATGGGTGGCAGGACCTCCTGGT
GGGCGCCCCCTACTACTTCGAGAGGAAAGAGGAAGTAGGGGGTGCCATCTATGTCTTCATGAACCAGGCGGGAAC
CTCCTTCCCTGCTCACCCCTCACTCCTTCTTCATGGCCCCAGTGGCTCTGCCTTTGGTTTATCTGTGGCCAGCAT
TGGTGACATCAACCAGGATGGATTTTCAGGATATTGCTGTGGGAGCTCCGTTTGAAGGCTTGGGCAAAGTGTACAT
CTATCACAGTAGCTCTAAGGGGCTCCTTAGACAGCCCCAGCAGGTAATCCATGGAGAGAAGCTGGGACTGCCTGG
GTTGGCCACCTTCGGCTATTCCCTCAGTGGGCAGATGGATGTGGATGAGAACTTCTACCCAGACCTTCTAGTGGG
AAGCCTGTGACACCACATTGTGCTGCTGCAGGGCCCCGGCCGTCATCAACATCGTCCACAAGACCTTGGTGGCCA
GGCCAGCTGTGCTGGACCTTGCACTTTGCACGGCCACCTCTTGTGTGCAAGTGAGCTGTGCTTGTGTTACAACC
AGAGTGCCGGGAACCCCAACTACAGGCGAAACATCACCTTGGCCTACACTCTGGAGGCTGACAGGGACCGCCGGC
CGCCCCGGCTCCGCTTTGCCGGCAGTGAGTCCGCTGTCTTCCACGGCTTCTTCTCCATGCCCCGAGATGCGCTGCC
AGAAGCTGGAGCTGCTCCTGATGGACAACCTCCGTGACAACTCCGCCCCATCATCATCTCCATGAACCTACTCTT
TACCTTTGCCGATGCCCCGATGCCCCCGGCTGGGGCTGCGGTCCCTGGACGCTTACCCGATCCTCAACCAGGCAC
AGGCTCTGGAGAACCACACTGAGGTCCAGTTCAGAAAGGAGTGCGGGCCTGACAACAAGTGTGAGAGCAACTTGC
AGATGCGGGCAGCCTTCGTGTCAGAGCAGCAGCAGAAGCTGAGCAGGCTCCAGTACAGCAGAGACGTCGGGAAAT
TGCTCCTGAGCATCAACGTGACGAACACCCGGACCTCGGAGCGCTCCGGGGAGGACGCCCACGAGGCGCTGCTCA
CCCTGGTGGTGCTCCCGCCCTGCTGCTGTCTCAGTGCGCCCCCCCCGGGGCTGCCAAGCTAATGAGACCATCT
TTTGCGAGCTGGGGAACCCCTTCAAACGGAACAGAGGATGGAGCTGCTCATCGCCTTTGAGGTATCGGGGTGA
CCCTGCACACAAGGGACCTTCAGGTGCAGCTGCAGCTCTCCACGTGAGTCACCAGGACAACCTGTGGCCCATGA
TCCTCACTCTGCTGGTGGACTATACACTCCAGACCTCGCTTAGCATGGTAAATCACCGGCTACAAAGCTTCTTTG
GGGGGACAGTGATGGGTGAGTCTGGCATGAAACTGTGGAGGATGTAGGAAGCCCCCTCAAGTATGAATTCCAGG
TGGGCCCAATGGGGGAGGGGCTGGTGGGCCTGGGGACCTGGTCTAGGTCTGGAGTGGCCCTACGAAGTCAGCA
ATGGCAAGTGGCTGCTGTATCCACGGAGATCACCGTCCATGGCAATGGGTCTGGCCCTGCCGACCACCTGGAG
ACCTTATCAACCTCTCAACCTCACTCTTCTGACCTGGGGACAGGCCATCATCCCCACAGCGCAGGCGGGCAGC
AGCTGGATCCAGGGGGAGGCCAGGGCCCCCACTGTCACTCTGGCTGCTGCCAAAAAAGCCAAGTCTGAGACTG
TGCTGACCTGTGCCACAGGGCGTGCCCACTGTGTGTGGCTAGAGTGCCCATCCCTGATGCCCCGTTGTACCA
ACGTGACTGTGAAGGCACGAGTGTGGAACAGCACCTTTCATCGAGGATTACAGAGACTTTGACCGAGTCCGGGTAA
ATGGCTGGGCTACCTATTCTCCGAACCAGCATCCCCACCATCAACATGGAGAACAAGACCACGTGGTTCTCTG
TGGACATTGACTCGGAGCTGGTGGAGGAGCTGCCGGCCGAAATCGAGCTGTGGCTGGTGGTGGTGGCGTGGGTG
CAGGGCTGTGCTGTGGGGCTGATCATCTCTCTGCTGTGGAAGTGTGACTTCTTTAAGCGGACCCGCTATTATC
AGATCATGCCCCAAGTACCACGAGTGCGGATCCGGGAGGAGGAGCGCTACCCACCTCCAGGGAGCACCCCTGCCCA
CCAAGAAGCACTGGGTGACCAGCTGGCAGACTCGGGACCAATACTACTGACGTCTCTCCCTGATCCACCCCCCTCC
TCCCCCAGTGTCCCTTTCTTCTCTATTATCATAAGTTATGCCTCTGACAGTCCACAGGGGGCCACCACCTTTGGC
TGGTAGCAGCAGGCTCAGGCACATACACCTCGTCAAGAGCATGCACATGCTGTCTGGCCCTGGGGATCTTCCCAC
AGGAGGGCCAGCGCTGTGGACCTTACAACGCCGAGTGCACTGCATTCTGTGCCCTAGATGCACGTGGGGCCAC
TGCTCGTGGACTGTGCTGGTGCATCACGGATGGTGCATGGGCTCGCCGTGTCTCAGCCTCTGCCAGCGCCAAAAC

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FIGURE 4902B

AAGCCAAAGAGCCTCCCACCAGAGCCGGGAGGAAAAGGCCCTGCAATGTGGTGACACCTCCCCCTTTCACACTG
GATCCATCTTGAGCCACAGTCACTGGATTGACTTTGCTGTCAAACTACTGACAGGGAGCAGCCCCGGGCCGCT
GGCTGGTGGGCCCCCAATGACACCCATGCCAGAGAGGTGGGGATCCTGCCTAAGGTTGTCTACGGGGGCACTTGG
AGGACCTGGCGTGCTCAGACCCAACAGCAAAGGAACTAGAAAGAAGGACCCAGAACGGCTTGCTTTCTGCATCT
CTGTGAAGCCTCTCTCCTTGGCCACAGACTGAACTCGCAGGGAATGCAGCAGGAAGGAACAAAGACAGGCAAACG
GCAACGTAGCCTGGGCTCACTGTGCTGGGGCACGGCGGGATCCTCCACAGAGAGGAGGGGACCAATTCTGGACAG
ACAGATGTTGGGAGGATACAGAGGAGATGCCACTTCTCACTCACCCTACCAGCCAGCCTCAGAAGGCCCCAGAG
AGACCTTGCAAGACCACGGAGGGAGCGACACTTGAATGTAGAATAGGCAGGGGGCCCTGCCCCACCCATCCAGC
CAGACCCACGCTGACCATGCGTCAGGGGCCTAGAGGTGGAGTTCTTAGCTATCCTTGGCTTTTCAGAGCCAGCCT
GGCTCTGCCCCCTCCCCATGGGCTGTGTCCTAAGGCCCATTTGAGAACTGAGGCTAGTTCCAGAAAACCTCTC
CTGACCCCTGCCTGTTGGCAGGCCCACTCCCCAGCCCCAGCCCCTTCCATGGTACTGTAGCAGGGGAATTCCCTC
CCCCTCCTTGTGCCTTCTTTGTATATAGGCTTCTCACGGCGACCAATAAACAGCTCCCAGTTTGT

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FIGURE 4903

GACAATATCAGGTGAGCTGTGGAGGTGGGGTCTTGGAAAGCTGGATGACAGCAGCTGGCAAGGGGATAAGAGAGC
AGTGAGCCCCCTCCCTCAAGGAGGTCTGGCTTTATCCATAGACAGGGCCCTCTGAGGTGGGGCTGAGGTACAAAGG
GGGATTGAGCAGCCCAGGAGAAGAGAGATGGGGGTTCCTTCTTCTCTCTCAGATGCATGGTGGACTTAGGA
CCTTGCTGGGCTGGGGGTCTCACTGCAGAGATGAAGCTGCTTCTGGCCCTAGCAGGGCTCCTGGCCATTCTGGCC
ACGCCCCAGCCCTCTGAAGGTGCTGCTCCAGCTGTCTGGGGGAGGTGGACACCTCGTTGGTGTGAGCTCCATG
GAGGAGGCCAAGCAGCTGGTGGACAAGGCCCTACAAGGAGCGGCGGGAAAGCATCAAGCAGCGGCTTCGCAGCGGC
TCAGCCAGCCCCATGGAACCTCTATCTTCAAGCAGCCGGTGGCAGCCACCAGGACGGCGGTGAGGGCCGCT
GACTACCTGCACGTGGCTCTAGACCTGCTGGAGAGGAAGCTGCGGTCCCTGTGGCGAAGGCCATTCAATGTCACT
GATGTGCTGACGCCCCGCCAGCTGAATGTGTTGTCCAAGTCAAGCGGTGCGCCTACCAGGACGTGGGGGTGACT
TGCCCCGAGCAGGACAAATACCGCACCATCACCGGGATGTGCAACAACAGACGCAGCCCCACGCTGGGGGCTCC
AACCGTGCTTTGTGCGCTGGCTGCCGGCGGAGTATGAGGACGGCTTCTCTTCCCTACGGCTGGACGCCCCGGG
GTCAAGCGCAACGGCTTCCCGGTGGCTCTGGCTCGCGCGGTCTCCAACGAGATCGTGCGCTTCCCCACTGATCAG
CTGACTCCGGACCAGGAGCGCTCACTCATGTTATGCAATGGGGCCAGCTGTTGGACCACGACCTCGACTTCACC
CCTGAGCCGGCCGCCCGGGCTCCTTCTGCTACTGGCGTCAACTGCGAGACCAGCTGCGTTGAGCAGCCGCCCTGC
TTCCCGCTCAAGATCCCGCCCAATGACCCCCGCATCAAGAACCAAGCCGACTGCATCCCGTCTTCCGCTCCTGC
CCGGCTTGCCCCGGGAGCAACATCACCATCCGCAACCAGATCAACGCGCTCACTTCCCTCGTGGACGCCAGCATG
GTGTACGGCAGCGAGGAGCCCCCTGGCCAGGAACCTGCGCAACATGTCCAACCAGCTGGGGCTGTGTCGGCTCAAC
CAGCGCTTCCAAGACAACGGCCGGGCCCTGCTGCCCTTTGACAACCTGCACGATGACCCCTGTCTCCTACCAAC
CGCTCAGCGCGCATCCCCTGCTTCTTGGCAGGGGACACCCGTTCCAGTGAGATGCCGAGCTCACCTCCATGCAC
ACCCTCTTACTTCCGGGAGCACAACCGGCTGGCCACAGAGCTCAAGAGCCTGAACCCTAGGTGGGATGGGGAGAGG
CTCTACCAGGAAGCCCGGAAGATCGTGGGGGCCATGGTCCAGATCATCACTTACCGGGACTACCTGCCCTGGTG
CTGGGGCCAACGGCCATGAGGAAGTACCTGCCACGTACCGTTCTTACAATGACTCAGTGGACCCACGCATCGCC
AACGTCTTACCAATGCCTTCCGCTACGGCCACACCCCTCATCCAACCTTCATGTTCCGCTGGACAATCGGTAC
CAGCCCATGGAACCAACCCCCGTGTCCCCCTCAGCAGGGTCTTTTTTGCCTCCTGGAGGGTCTGTGCTGGAAGGT
GGCATTGACCCCATCCTCCGGGGCTCATGGCCACCCCTGCCAAGCTGAATCGTCAGAACCAAAATGCAGTGGAT
GAGATCCGGGAGCGATTGTTTGAGCAGGTCAAGAGATTGGGCTGGACCTGCCTGCTCTGAACATGCAGCGCAGC
AGGGACCACGGCTCCCAGGATACAATGCCTGGAGGCGCTTCTGTGGGCTCCGCGAGCCTGAAACTGTGGGCCAG
CTGGGCACGGTGTGAGGAACCTGAAATTGGCGAGGAACTGATGGAGCAGTATGGCAGCCCAACAACATCGAC
ATCTGGATGGGCGGCGTGTCCGAGCCTCTGAAGCGCAAAGGCCGCGTGGGCCCACTCCTCGCTGCATCATCGGT
ACCCAGTTCAGGAAGCTCCGGGATGGTGATCGGTTTTGGTGGGAGAACGAGGGTGTGTTAGCATGCAGCAGCGA
CAGGCCCTGGCCCAGATCTCATTGCCCGGATCATCTGCACAACACAGGCATCACACCCTGTCTAAGAACAAC
ATCTTCATGTCCAACATCATATCCCCGGGACTTTGTCAACTGCAGTACACTTCTGCAATTGAACCTGGCTTCTTG
AGGGAAGCCTCCTAGAGGCCAGGTAAGGGGGTGCAGCAGTGAAGGGTATATCTGGGCTGGCCAGTTGGAACCACG
GAGATCTCCTTGCCCTAGATGAGCCAGCCCTGTTCTGGGTGCAGCTGAGAAAATGAGTGACTAGACGTTTCAATTT
GTGTGCTCATGTATGTGCGAAGTATATAAATTGGCTTTTTCATGCGTGTGTGTTGTCTGAACATGGGGAGTGTTC
ATGGGTTATGTGTATGTGCCATTTATGTGAGTGTGTGTTGTGCTGATGAGAATACTGAGTATGTGGAAGGCAGC
AGAGCGGACTGGTGAGGAGCACAGCTCAGGAACCTAGACTGCCTGGGTTCCAATCCTGGCTCTGTGGCTTGCTAGC
TATGTGACCTTGAGCAAATTACCCTCCTTAAACAAGAGTTTTCTTCTTGTAAATTACATCTGTCAITGGTTTCTT
GGAGGGCCCCACTTGTATCCTCTGGTTCTTCAATTTATTGAGCACCTACTACATGCAAGGCACTGTACTAGGCGTGA
GAAGCATATAGAGGCAAGAAAGAGATACCAAGATGCCATCTGTGTCCTGGTTAGCAGAGCTGGACCAGTGGTGCC
TTGGAGGGATAAGCCAGCTGCAGCTGGGCTGTGTGGTTGACTTATGGGCCAGCCAGCCAGGCTCAGGCCATGGC
TCCCCTTTTTCTTCTCACCCTGATTTCTTGCTTATTCACTGAAGTTCTCCTGAAGAGGAACCTGGGCCTGTTGCC
CTTCTGTACCATTTATTTGCTCCCAATGTTTATGATAATAAAGGCACCGCTGATGGGGACCTCC

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FIGURE 4904

MGVPPFFSSLRCMVDLGPCWAGGLTAEMKLLALLAGLLAILATPQPSEGAAPAVLGEVDTSLVLSSMEEAKQLVDK
AYKERRESIKQRLRSGSASPMELLSYFKQPVAATRATAVRAADYLHVALDLLERKLRLWRRPFNVTDVLTPAQLN
VLSKSSGCAYQDVGVTCPEDQKYRTITGMCNNRRSPTLGASNRAFVRWLP AEYEDGFSLPYGWTPGVKRNQFPVA
LARAVSNEIVRFPTDQLTPDQERSLMFMQWGQLLDHDLDFTEPAARASFVTGVNCETSCVQQPFCFPLKIPPND
PRIKNQADCIPFFRSCPACPGSNITIRNQINALTSFVDASMVYGSEELARNLRNMSNQLGLLAVNQRFQDNRA
LLPFDNLHDDPCLLTNRSARIPCFLAGDTRSEMPELTSMHTLLLREHNRLATELKS LNPRWDGERLYQEARKIV
GAMVQIIITYRDYLPVLGPTAMRKYLPTYRSYNDSDPRIANVFTNAFRYGH TLIQPFMFRLDNRYQPMENPRV
PLSRVFFASWRVVLEGGIDPILRGLMATPAKLNQONQIAVDEIRERLFEQVMRIGLDLPALNMQRSDHGLPGYN
AWRRFCGLPQPETVGQLGTVLRNLKLARKLMEQYGTNNID IWMGGVSEPLKRKGRVGPILLACII GTQFRKL RDG
DRFWWENEGVFMSMQQRQALAQISLPRIICDNTGITTVSKNNIFMSNSYPRDFVNCSTLPALNLASWREAS

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FIGURE 4905

TTCTTCCGCTCCTGCCCGGCTTGCCCCGGGAGCAACATCACCATCCGCAACCAGATCAACGCGCTCACTTCCTTC
GTGGACGCCAGCATGGTGTACGGCAGCGAGGAGCCCCCTGGCCAGGAACCTGCGCAACATGTCCAACCAGCTGGGG
CTGCTGGCCGTCAACCAGCGCTTCCAAGACAACGGCCGGGCCCTGCTGCCCTTTGACAACCTGCACGATGACCCC
TGTCCTCTACCAACCGCTCAGCGCGCATCCCCTGCTTCCTGGCAGGTCAGCTTTGGGGTGGGGACCAGAGGTGG
CATAGGAGATGTTCCCTGTTGGAGCCACAGGGACACCCGTTCCAGTGAGATGCCCCAGCTCACCTCCATGCACAC
CCTCTTACTTCGGGAGCACAACCGGCTGGCCACAGAGCTCAAGAGCCTGAACCCTAGGTGGGATGGGGAGAGGCT
CTACCAGGAAGCCCCGGAAGATCGTGGGGGCCATGGTCCAGGTAGGCCGCTCTTGAACACCGGGCACACGGGATCCA
GATGTGTCCCTGCAACATCCTAGCTGTGTGACCTTGGGCAAGTTCCTAACGCTCCTGAGCCTTGCCTTCTTCATC
CATGAGGCTGTAAGGATTATAATACATATATGAAAACACCTTTCAGATAGTAAGTGCTTGACAAAGCCTCCTTCC
CTTCCCTCTCCCTCTTCGAGGTTTGCTCCCTGCAGTCTTCTTCTCCTGTGGGTCTGTTATTGGTGTGGGAGGGT
TGAATGTTTGGTTTAGCGCCCAAGTAGCTGTTCAAGTAAATTCTTCTTCCCTCCATCTCACTGTCACTCTTAGCTC
CTTTACCCACTCACCTCTTCTTTTTAAATTAATAAATTAATAGGGCTGGGCGCGGTGGCTCATGCCTGTAATCC
CAGCACTTTGGGAGGCGGAGGCGGGTGGATCACGAGGTCAGGAGATCAAGACCATGCTGGCTAACACGGTGAAAC
CCCATCTCTACTAAAAATACAAAAATTAGCCGGGCGTGGTGGCGGGCACCTGTAGTCCCAGCTACTTGGGAGGCT
GAGGCAGGAGAATGGCGTGAACCTGGCTGGAGTGCAGTGGTGGCATCTTGGCTCACTGCAACCTCCACCTTTCAG
GCTCAAGCCATTCTCCC

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FIGURE 4906

AGCCAGTTTGAAGTAGATCTGTACCAAAATGAAACAGCCTGTCAGAGTCCTTTGGATTATCAGTACCGTCAGGAG
ATCCTGAAGCTGGAGAATTTCGGGTGGCAAGAAAAACCGACGAATCTTTACCTACACTGACTCTGATAGATACACC
AATTTGGAGGAGCACTGTCAGAGAAATGACCCTGCAGCCAGCGAGGTGCCTTCATTCTTGGTCGAGCGAATGGCA
AATGTCAGGCGTCGCCGGCAGGACAGGCGAGGGATGGAGGGCGGCATCCTCAAGTCACGCATCGTCACCTGGGAG
CCCTCAGAAGAGTTTGTGAGGAACAACCACGTCATTAACACCCCTCTTCAGACAATGCACATCATGGCAGACCTG
GGGCCCTATAAAAAGCTTGGCTATAAGAAGTATGAACATGTCTGTGTACTCTGAAGGTGGATAGCAATGGTGTG
ATCACAGTAAAGCCTGACTTCACGGGCCTCAAAGGACCTACAGGATTGAGACGGAGGGGGAGAAGCAGGAGCTG
TGGAAATATACGATCGACAATGTTTCCCCCACGCACAGCCGAGGAGGAGGAGCGGGAACGGCGAGTGTTCAAG
GATCTTTATGGCCGGCACAAGGAGTATCTCAGCAGCCTCGTAGGCACCGACTTTGAGATGACTGTCCAGGTGCC
CTCCGGCTCTTTGTAATGGAGAGGTCTGTTTCAGCCCAAGGCTATGAGTATGACAATCTCTACGTCCACTTCTTT
GTAGAATTGCCAAGTCTGCTCAAGCCAGCATTCCAGCAGCTCTCAGGAGTAACACAGACCTGCACCACC
AAGTCCCTGGCAATGGACAAGGTGGCTCATTCTCCTACCCATTACGTTTGAAGCCTTCTTCTCCATGAGGAT
GAATCTTCTGATGCACTCCCGGAGTGGCCTGTGCTCTACTGTGAGGTCTCTCGCTGGACTTCTGGCAGAGGTAC
CGTGTGGAAGGCTATGGGGCTGTGGTGTGCTGCCACTCCAGGCTCACACACCCTGACAGTCTCCACGTGGAGA
CCTGTGGAGCTTGGCACGGTGGCTGAGCTGAGGAGGTTTTTCATTGGCGGTTCTCTGGAAGTGGAGGACCTCTCC
TATGTACGGATACCAGGATCCTTCAAGGGGGAACGCTGAGCCGCTTTGGACTCCGCACAGAGACCACAGGCACT
GTCACCTTCCGCTTGCACTGTCTGCAGCAGTCCAGGGCCTTCATGGAATCGAGCTCCCTTCAGAAAAGGATGCGG
AGTGTGTTGGACCGTCTGGAAGGGTTTCAGCCAGCAGAGTTCCATTACAATGTGCTAGAGGCCTTCCGTCGAGCC
CGGCGCCGCATGCAGGAGGCCCGGGAAGCCTCCCGCAGGACCTAGTGAGCCCTCTGGAACCTGGTCTCCTAG

CTCACAGCAGCCCTGGCCACAGTGCAAGAGGACAAGATGGGGGATATCTGAGGCCAGTGCTCTCCTGCCTCTTC
GTCTTTCTGATTAGAGACCACGTTGGTCTGCTGAGAACCAGAAAAGCTGGGAAATTCCCGGCTGGCCCTCTGCC
TAGCCTTCTGCAGGGTCTTCTCCCTACCTGTGGAAATAAAGCCAGAGACCCTGTGGCCCCCTTTATATTTC
AGCCACTGTCAGATGGGCATCACAGCAAGGCAGGCTTTTTGATCTGAAGCTGTTTGGGGTGACCCCATAGTGAGT
CTGGCCTTGACTCACTTTTCTGGCTTGTAAGTACAGTAGCAGGGGATCTGCTGTTCTCCACCCTTTAAAAATGGA
GCCTTTCATCTTCCAAGACCAAAGAAGGAAGGAAGGTGGACGGTGAGAGGGTCTTAAATCCCCAGCCTGTGAGTC
TCAGCCTCTTCCAGGGAAGCCTCATTCTACTGCTTGGGGCTTGCTGAGGTTGAGATATGAGTTATTTCTGAGTA
AGTGAAGGCTGAAGGCAGTGCTGAGTCCTTTCTGCTAGCTGGGTGGTATCTTTTACTGTGTTTTTTTGTGTTT
GTTTTTTGTTTTTTGTTTACATAAACCCCTTTTATTTTGGAAAAA

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FIGURE 4907

MTTAASEVPSFLVERMANVRRRRQDRRGMEGGILKSRIVTWEPSEEFVRNNHVINTPLQTMHIMADLGPKKLG
KKYEHVLCCLKVDSNGVITVKPDFTGLKGPYRIETEGEKQELWKYTIIDNVSPHAQPEEEERERRVFKDLYGRHKE
YLSSLVGTDFFEMTVPGALRLFVNGEVVSAGGYEYDNLVHFFVELPTAHWSSPAFQQLSGVTQTCTTKSLAMDKV
AHFSYPFTFEAFFLHEDESSDALPEWPVLYCEVLSLDFWQRYRVEGYGAVVLPATPGSHTLTVSTWRPVELGTVA
ELRRFFIGGSLELEDLSYVRIPGSFKGERLSRFGLRTETTGTVTFRHLHCLQQSRAFMESSSLQKRMRSVLDRLG
FSQQSSIHNVLFAFRARRRMQEARESLPQDLVSPSGTLVS

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FIGURE 4908

GGCCTGTTCTCGAGTCCGCGCTTTTCGTACCGCCATGTCGGGAGGTGGTGTGATTTCGTGGCCCCGCAGGGAACA
ACGATTGCCGCATCTACGTGGGTAACCTACCTCCAGACATCCGAACCAAGGACATTGAGGACGTGTTCTACAAAT
ACGGCGCTATCCGCGACATCGACCTCAAGAATCGCCGCGGGGGACCGCCCTTCGCCTTCGTTGAGTTCGAGGACC
CGCGAGACGCGGAAGACGCGGTGTATGGTCGCGACGGCTATGATTACGATGGGTACCGTCTGCGGGTGGAGTTTC
CTCGAAGCGGCCGTGGAACAGGCCGAGGCGGCGGGGGTGGAGGTGGCGGAGCTCCCCGAGGTCGCTATGGCC
CCCCATCCAGGCGGTCTGAAAACAGAGTGGTTGTCTCTGGACTGCCTCCAAGTGGAAGTTGGCAGGATTTAAAGG
ATCACATGCGTGAAGCAGGTGATGTATGTTATGCTGATGTTTACCGAGATGGCACTGGTGTCTGGAGTTTGTAC
GGAAAGAAGATATGACCTATGCAGTTCGAAAACCTGGATAACACTAAGTTTAGATCTCATGAGGGAGAACTGCCT
ACATCCGGGTTAAAGTTGATGGGCCCAGAAGTCCAAGTTATGGAAGATCTCGATCTCGAAGCCGTAGTCGTAGCA
GAAGCCGTAGCAGAAGCAACAGCAGGAGTCGAGTTACTCCCCAAGGAGAAGCAGAGGATCACCACGCTATTCTC
CCCGTCATAGCAGATCTCGCTCTCGTACATAAGATGATTGGTGACACTTTTTGTAGAACCCATGTTGTATACAGT
TTCCCTTATTCAGTACAATCTTTTCATTTTTTAATTCAAACCTGTTTTGTTCAGAATGGGCTAAAGTGTGAATT
GCATTCTGTGAATATCCCTTGCTCCTAACATCTACATTCCCTTCGTGTCTTTGATAAATTGTATTTAAAGTGAT
GTCATAGACAGGATTGTTTAAATTTAGTTAACTCCATACTCTTCAGACTGTGATATTGTGTAAATGTCTATCTGC
CCTGGTTTTGTGTGAAGTGGGATGTTGGGGGTGTTTGTGGTTATCTTACCTGGGGAAGTTCTTATGTTTATCTTGC
TTTTCATGTGTCTTTCTGTAGACATATCTGAAGAGATGGATTAAGAATGCTTTGGATTAAGGATTGTGGAGCACA
TTCAATCATTTTAGGATTGTCAAAAGGAGGATTGAGGAGGATCAGATCAATAATGGAGGCAATGGTATGACTCC
AAGTGCTATTGTACAGATGAAATTGGCAGTATTGACCTTATACTAAAAGGCAGGGGTTAAAATGATTATATAC
ATTTTCCTTAAACACTTGCAACATTTTATTCAGTTGTCTTTAGCTACAATTGCTTTGCTTTTTTAAACCTTGGC
AATTGTGGCAAAATTATATGCCCCATTTTGTAGCAACTTATTTTGCTCCCTTCCCCCATTTTTGTTTTAATAGG
GACTAATGTGGGAAGAACTGGCTAATTTGTACAGTGCTTAGTTACAACCTGTTAATGTGTGACCTGCTGTTGGTG
TACATGTGGGTACAGGGTGTTTTTAAATCCAACAAGATAGAGTATAATATCAATACTGCTAAATCTGCATGTCTT
CTGTGTGACTGATAGAGCGTTGCTATTTTCATTTTTTTAAGACAAAATGAAAGCAAAATATAGAGTTCCAATGTAT
TGGTGTAGATAATCTAGTTGGGAATACTTTTTAAGTCTCACCTTCCCTTTTAACTAATATTCAATTTGGTTTCAT
ATGTTTAAAGACTTTAATTTACAAATTAAATTGCAAATGGGAGCATTAGATTTAGTTTTAGACTTAGGTGGGTA
GCAATGCCAGTAACTTAAATTACGTAACCTCTTGCAACCACGAAACCTGTAATACGCTGTACAGTAACAAGTGT
TGGCATTATCAGTTGAACTGTAAATACAAATGCTTCTTCCAATTAGTCTCTATGATGATTAAGTTTCTAAAATT
TATCTGAACACCATTTCAGAACTTGTTTTGGGGAATTTGATAGTTATTGATGTGCATCTGTTAACTGATGACAG
ACATAACTCATCTATCCCCAGAAACCTTTTTTGATTACAGTATCTAACATTTTGCCCTCCTCTTTTTTGGTTTTGC
TGGTTATAAAGGTTTGGATTGGAGAGGGCTCACTGGATCCCAATCCTTGGAGCTGGATCATTGGATTCAAATCAT
AATGTGGATAGGATAGGGAGGATGAATTACCAGGATTCATGGAGCGGGATCAGATTACCAGGAACATAGGAGTGG
ATTCCTGCCCCAACCAAAACCGCATTTCGTGTGGATTTTTTATTCAACTTAATTGGCTATTCCAAAGATTTTTTT
TTCTATTTTTTGACGATTGGAGCCCTTAAGATGCACGATGGAATTGTGTTTTGCGTTTTTGGTAAAAGGAGCAA
AGCGAGGACCTGGAGATAAACGCTGGAGCAATCTCCTTGGAAAGGATTCAGCACGAGTAGATGGTAAACATTTAAA
GGGGAAGGGGGGTTTTGTTTTAAATAGTAAATCAGTAAGTCACTTCTAAATTTAAAGAAAACAAAATTGGAGTT
GAAGAATAAGTAGGTTTCCAATTGGCTATTGCCGTTTTCTTTGAAAAATAAACATTTTTTAAAAAACAAAAAA
AAAAAAA

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FIGURE 4909

MSGGGVIRGPAGNNDCRIYVGNLPPDIRTKDIEDVFYKYGAIRDIDLKNRRGGPPFAFVEFEDPRDAEDAVYGRD
GYDYDGYRLRVEFPRSGRGTGRGGGGGGGGGAPRGRYGPPSRSEN RVVVSGLPPSGSWQDLKDHMREAGDVCYA
DVYRDGTGVVEFVRKEDMTYAVRKLDNTKFRSHEGETAYIRVKVDGPRSPSYGRSRSRSRSRSRSRSRSRNSRSRS
YSPRRSRGSPRYSPRHSRSRSRT

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FIGURE 4910

ATGGGTAAGATCCGGAAGGCCCAAGGAGAAGGGCTGCCCCGCCCACTGCCCCCTGCTGGTCCAGCCCAACCTCCCC
TTTGGGTACCCAGTCCACGGAGTGGAGGTGATGCCCCCTGCACACGGTTCCCATCCCAGGCCTCCAGTTTGAAGGA
CCCGATGCCCCCGTCTATGAGGTCACCCTGACAGCTTCTCTGGGGACACTGAACACCCTTGCTGATGTCCCAGAC
AGTGTGGTGCAGGGCAGAGGCCAGAAGCAGCTGATCATTCTACCAGTGACCGGAAGCTGTTGAAGTTTATTCTT
CAGCACGTGACATACACCAGCACGGGGTACCAGCACCAGAAGTACTATCCCCACATTGCCATTGACCCCATAGAG
CCACTCGAGGAGAGAACAAATCATGCTGTGCGCTTTGCACCTGTGAGTCTGGAGTCCAGGTCTCAGTGGCCAAG
TTTCCAGTGACCATCCGCCATCCTGTATACCCAAGCTATACGACCTGGACCAGTGTTCTTTTCAAGTGTAGTCTT
AATCAGACTATTCAACTCCTCATCACCACAGACACTGGTAGTATCTGGCACCAGGTGGGGTGGGAAGACAACCCGT
GAGTATTACACCTTCATGTGGGTACTTTGCCCCATTGACCTAAACAACAAATCAGCTAAACAGCAGGAAGTCCAA
TTCAAAGCTTACTACCTGCCCCAAGGATGATGAGTATTACCAGTTCTGCTATGTGGATGAGGATGGTGTGGTCCGG
GGAGCAAGTATTCCCTTTCCAATTCCGTCCAGAAAATGAGGAAGACATCCTGGTTGTTACCACTCAGGGAGAGGTG
GAAGAGATTGAGCAGCACAAAGGAGCTTTGCAAAGAAAACCAGGAGCTGAAGGACAGCTGTATCAGCCTCCAG
AAGCAGAACTCAGACATGCAGGCTGAGCTCCAAAAGAAGCAGTATCTTTGA

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[illegible]

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FIGURE 4912

MEETIKDPPTS AVLLDHCHFSQVIFNSVEKFYIPGGDVTCHYTFTQHFIPRRKDWIGIFRVGWKTTREYYTFMWV
TLPIDLNNKSAKQQEVQFKAYYLPKDDEYYQFCYVDEEDGVVRGASIPFQFRPENEEDILVVTTQGEVEEIEQHNK
ELCKENQELKDSCISLQKQNSDMQAELOKKQEELETLSINKKLELVKEQKDYWETELLQLKEQNQKMSSENEK
MGIRVDQLQAQLSTQEKEMEKLQGDQDKTEQLEQLKKENDHFLSLTEQRKDQKKLEQTVEQMKQNETTAMKKQ
QELMDENFDLSKRLSENEIICNALQRQKERLEGENDLLKRENSRLLSYMGLDFNSLPYQVPTSDEGGARQNPGLA
YGNPYSGIQESSPSPLSIKKCPICKADDICDHTLEQQQMQLCFNCPICDKIFPATEKQIFEDHVFCHSL

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FIGURE 4913

AAAAAATGCTTCTGTGCTCTAAGATATATATGTGTGTGTGTGTGCTACATATATATTTTTAAGAAAGGACCATC
TCTTTAGGATATATTTTTAAATTCTTTGAAACACATAACCAAATGGTTTGATTCACTGACTGACTTTGAAGCTG
CATCTGCCAGTTACACCCAAATGGCTTTAATCCCTCTCGGGTCTGGTTGCCTTTTGCAGTTTGGGTTGTGGAC
TCAGCTCCTGTGAGGGTCTGGTTAGGAGAGAGCCATTTTTAAGGACAGGGAGTTTTATAGCCCTTTTCTACTTT
CCTCCCCCTCCTCCAGTCCTTATCAATCTTTTTTCTTTTTCTGACCCCTCCTTCTGGAGGCAGTTGGGAGCT
ATCCTTGTATATGCCTCACTATTGGCAGAAAAGACCCCATTTAAACCCAGAGAACACTGGAGGGGGATGCTCTA
GTTGGTTCTGTGTCCATTTTCTCTGTGCCAAAGACAGACAGACAGAGGCTGAGAGAGGCTGTTCTGAATCAAA
GCAATAGCCAGCTTTCGACACATACCTGGCTGTCTGAGGAGGAAGGCCTCCTGAAACTGGGAGCTAAGGGCGAG
GCCCTTCCCTTCAGAGGCTCCTGGGGATTAGGGTGTGGTGTTCGCAAGCCAAGGGGTAGGGAGCCGAGAAATT
GGTCTGTGCGCTCCTGGTTGCATTTGGGGAAGGAGAGGAAGTTTGGGGCTCCAGGTAGCTCCCTGTTGTGGGAC
TGCTCTGTCCCTGCCCTACTGCAGAGATAGCACTGCCGAGTTCCCTTCAGGCCTGGCAGACGGGCAGTGAGGA
GGGGCTCAGTTAGCTCTCAAGGGTGCCTTCCCTCCTCCCAACCAGACATAACCTCTGCCAACTGGGAACCA
GCAGTGCTAGTAACCTACCTACAGAGCCCCAGAGGGCTGCTTGAGCCTTCTTGCTCCACAGGAGAAGCTGGTGC
CTCTAGGCAACCCCTTCTCCACCTCTCATCAGGGTGGGGTCTCCTTTCTTTCCCTGAAGTGTTATGGG
GAGATCCTAGTGGCTTTGCCATTCAAACCACTCGACTGTTTGCTGTCTTGAAAACCAAGTAGAAGGGAAACAG
CACAGCCTGTACAGTAATTGCAGGAAGATTGAAGAAAAATCCTCATCAATGCCAGGGGACATAAAAGCCATTTC
CCTTCCAAATACTCGACAATTTAGATGCAGAACATTTCTCTGTATTCACTTAGAGTAACACCAGCTGAAAAC
GCAGTTTCTTTCTTTGGATACATAAGGCTTCTCTATCGGGGTACGGGACAGGGAGGAGGCCTCATGTCTGAAGG
GGGATTTAGGGGCGAGAGCCCCAGCCCTGACCCCTCGGTCTGTGCACCGCTTTGGGGCACAGTCTGATGGCGCCT
TTGCTGGCGCCTTAGTATGGTTGACTCCGGATGGACAAAAAGAAAAAAATTTTTTTTCTTGAATGAAATAGCAGG
AAGCTCCTCGGGAGCATGTGTTTTGATTAAACCGCAGGTGATGGATGCTACGAGTATAAATGGATTAACCTACCTCA
ATCCTTACAGTAAGATTGGAACCTAAGGGCAGGGACTCATGCATAAGGGTATGAATCCAGCCAGGACAAGTGAGT
TGAGGCTTGTGCCACAAAAGGTTTGTCTTGGGGAACAGGCAGGCCTGCCAGGATCCCCCATATCGATTGGGC
TGGGAGGGCTGGCCATGAGGTCCCCACTTTCTGCTTTCTTGGCCATGTGTCAACCCCTTTGGCCTCCAGCTTGTC
CCTCTCTCACTTTCTATAGCTTTGTGGACCAGATGGTGAGGAAAGGAATGGCCTCTTCCCTTCTAGAGGGGGCT
GGCTGGAGTGAGACCTGGGGCTTGGCCTGGAACCCACACAGCCCCAAAGTCAGGAAGCCTGGGGAAACCAGA
GCTGAGACCTCTTCAACAGGGTTTCTTTGAGATCCTACACCTCCATTGGGCCCTTTTTAGTCTTCAATGGGGGC
CCAGTTGGCTCTAGAAGGAGAAGAGGTGAAGCAGGATCCTTTGCCCTGGGGGAGTCTGAGGGCGCGGTCCTTGGA
CTATTAGGCCGTCTTTGTAGTTGGGGGAGTTCCACTGGGCGATCCAGCCCTCCCCACCCACCCTCTAATGG
ACCTCCTCATAGAAGCCCCATTTCATTTTGTATCTACCTCTTAGCAAAACAATAGATAAATTAGGTAGTGG
CAGCTCCACTTGCTTAGGTTAGGGGGGAAAAAGATTTCTTTTCCAAAGGAAAAAAATATTACCTTGAGAATAC
TTTCCAAAAATAAAATTAATAAAAAAAAAA

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FIGURE 4914

MALIPSRVWLPFAVWVDSAPVRGLVRREPFLRTGSFIALFYFPPLLPVLINLFSFFLTSPFWRQLGAILVYASL
LAEKTPFKTQRTLEGDALVGSVSIFLCAKDRQTEAERGCS

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FIGURE 4915

GGGACGTGGAGACCCGGGGTCCCGGCAGCCGGGCGGCCCGGGGCCAGGGTGGGGATGCACCGCCGCGGGGTGG
GAGCTGGCGCCATCGCCAAGAAGAACTTGCAGAGGCCAAGTATAAGGAGCGAGGGACGGTCTTGGCTGAGGACC
AGCTAGCCCAGATGTCAAAGCAGTTGGACATGTTCAAGACCAACCTGGAGGAATTTGCCAGCAAACACAAGCAGG
AGATCCGGAAGAATCCTGAGTTCCGTGTGCAGTTCCAGGACATGTGTGCAACCATTGGCGTGGATCCGCTGGCCT
CTGGAAAAGGATTTTGGTCTGAGATGCTGGGCGTGGGGGACTTCTATTACGAACTAGGTGTCCAAATTATCGAAG
TGTGCCTGGCGCTGAAGCATCGGAATGGAGGTCTGATAACTTTGGAGGAACTACATCAACAGGTGTTGAAGGGAA
GGGGCAAGTTCGCCCAGGATGTCAGTCAAGATGACCTGATCAGAGCCATCAAGAACTAAAGGCACTTGGCACTG
GCTTCGGCATCATCCCTGTGGGCGGCACCTTACCTCATTGAGTCTGTTCCAGCTGAGCTCAATATGGATCACACCG
TGGTGTGTCAGCTGGCAGAGAAGAATGGCTACGTGACTGTCAGTGAGATCAAAGCCAGTCTTAAATGGGAGACCG
AGCGAGCGCGGCAAGTGTGGAACACCTGCTGAAGGAAGGGTTGGCGTGGCTGGACTTACAGGCCCCAGGGGAGG
CCCACTACTGGCTGCCAGCTCTCTTCACTGACCTCTACTCCCAGGAGATTACAGCTGAGGAGGCCAGAGAAGCCC
TCCCCTGACTGCATGTGGAAGGGCACACAGCAGCAGGCAGGGAGGAGGCGGAGGTGGCAAATAAACCTGGGCAAT
TTTGTTTATACAAAAAATAGAAAAAA

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FIGURE 4916A

AGCAGACGGGAGTTTCTCCTCGGGGTCGGAGCAGGAGGCACGCGGAGTGTGAGGCCACGCATGAGCGGACGCTAA
CCCCCTCCCCAGCCACAAAGAGTCTACATGTCTAGGGTCTAGACATGTTGAGCTTTGTGGACCTCCGGCTCCTGC
TCCTCTTAGCGGGCCACCGCCCTCCTGACGCACGGCCAAGAGGAAGGCCAAGTCGAGGGCCAAGACGAAGACATCC
CACCAATCACCTGCGTACAGAACGGCCTCAGGTACCATGACCGAGACGTGTGGAACCCGAGCCCTGCCGGATCT
GCGTCTGCGACAACGGCAAGGTGTTGTGCGATGACGTGATCTGTGACGAGACCAAGAAGTGTCCCGGGCGCGAAG
TCCCCGAGGGCGAGTGTGTCCCGTCTGCCCCGACGGCTCAGAGTCACCCACCGACCAAGAAACCACCGGCGTCG
AGGGACCCAAGGGAGACACTGGCCCCGAGGCCAAGGGGACCCGAGGCCCCCTGGCCGAGATGGCATCCCTG
GACAGCCTGGACTTCCCGGACCCCCCGGACCCCCGACCTCCCGGACCCCTGGCCTCGGAGGAACTTTGCTC
CCCAGCTGTCTTATGGCTATGATGAGAAATCAACCGAGGAATTTCCGTGCCTGGCCCCATGGGTCCCTCTGGTC
CTCGTGGTCTCCCTGGCCCCCTGGTGACCTGGTCCCCAAGGCTTCCAAGGTCCCTGGTGAGCCTGGCGAGC
CTGGAGCTTCAGGTCCCATGGGTCCCCGAGGTCCCCCAGGTCCCCCTGGAAAGAATGGAGATGATGGGAAGCTG
GAAAACCTGGTGCCTGGTGAGCGTGGGCTCCTGGGCTCAGGGTGTCTGAGGATTGCCCGGAACAGCTGGCC
TCCCTGGAATGAAGGGACACAGAGTTTCAGTGGTTTGGATGGTGCCAAGGGAGATGCTGGTCTGTGGTCTTA
AGGGTGAGCCTGGCAGCCCTGGTGAAAATGGAGCTCCTGGTCAGATGGGCCCCCGTGGCCTGCCTGGTGAGAGAG
GTCGCCCTGGAGCCCTGGCCCTGTGGTGCTGCTGGAATGATGGTGCTACTGGTGCTGCCGGGCCCCCTGGTC
CCACCGGCCCGTGGTCTCCTGGCTTCCCTGGTGCTGTTGGTGCTAAGGGTGAAGCTGGTCCCCAAGGGCCCC
GAGGCTCTGAAGGTCCCCAGGGTGTGCGTGGTGAGCCTGGCCCCCTGGCCCTGTGTGGTGTCTGGCCCTGTCTG
GAAACCTGGTGCTGATGGACAGCCTGGTGCTAAAGGTGCCAATGGTGCTCCTGGTATTGCTGGTGCTCCTGGCT
TCCCTGGTGCCCCGAGGCCCTCTGGACCCAGGGCCCCGGCGGCCCTCCTGGTCCCAAGGGTAACAGCGGTGAAC
CTGGTGCTCCTGGCAGCAAAGGAGACACTGGTGCTAAGGGAGAGCCTGGCCCTGTTGGTGTTCAAGGACCCCTG
GCCCTGTGGAGAGGAAGGAAGCGAGGAGCTCAGAGTGAACCCGACCCACTGGCCTGCCCGGACCCCTGGCG
AGCGTGGTGGACCTGGTAGCCGTGGTTTCCCTGGCGCAGATGGTGTTGCTGGTCCCAAGGGTCCCGCTGGTGAAC
GTGGTTCTCCTGGCCCTGTGGCCCCAAAGGATCTCCTGGTGAAAGCTGGTGCTCCCGGTGAAGCTGGTCTGCCTG
GTGCCAAGGGTCTGACTGGAAGCCCTGGCAGCCCTGGTCTGATGGCAAACTGGCCCCCTGGTCCCGCCGGTC
AAGATGGTGCGCCCGGACCCCGAGGCCACCTGGTGCCCGTGGTGACGGCTGGTGATGGGATTCCCTGGACCTA
AAGGTGCTGCTGGAGAGCCCGCAAGGCTGGAGAGCGAGGTGTTCCCGGACCCCTGGCGCTGTGGTCTCCTGCTG
GCAAAGATGGAGAGGCTGGAGCTCAGGGACCCCTGGCCCTGTGGTCCCGCTGGCGAGAGAGGTGAACAAGGCC
CTGCTGGCTCCCCCGGATTCCAGGGTCTCCCTGGTCTGTGGTCTCAGGTGAAGCAGGCAAACCTGGTGAAC
AGGGTGTTCCTGGAGACCTTGGCGCCCCCTGGCCCCCTGTGGAGCAAGAGGGCGAGAGAGGTTTCCCTGGCGAGCGTG
GTGTGCAAGGTCCCCCTGGTCTGTGGTCCCCGAGGGGCCAACGGTGTCTCCCGCAACGATGGTGCTAAGGGTG
ATGCTGGTGCCCTGGAGCTCCCGGTAGCCAGGGCGCCCCCTGGCCTTCAGGGAATGCCTGGTGAACGTGGTGACG
CTGGTCTTCAGGGCCTAAGGGTGACAGAGGTGATGCTGGTCCCAAGGTGCTGATGGCTCTCCTGGCAAAGATG
GCGTCCGTGGTCTGACTGGCCCCATTGGTCTCCTGGCCCTGTGGTGGCCCTGGTGACAAGGGTGAAAGTGGTC
CCAGCGGCCCTGTGGTCCCACTGGAGCTCGTGGTGCCCCCGGAGACCGTGGTGAGCCTGGTCCCCCGGCCCTG
CTGGCTTTGCTGGCCCCCTGGTGTGACGGCCAACCTGGTGCTAAAGGCGAACCTGGTGATGTGGTGCTAAAG
CCGATGTGGTCCCCCTGGCCCTGCCGGACCCGCTGGACCCCTGGCCCCATTGGTAATGTTGGTGCTCCTGGAG
CCAAAGGTGCTCGCGGCAGCGCTGGTCCCCCTGGTGCTACTGGTTTCCCTGGTGCTGTGGCCGAGTCGGTCTCT
CTGGCCCCCTGGAATGCTGGACCCCTGGCCCCCTGTGGTCTGTGGCAAAGAAGCGGCAAAGGTCCCCGTG
GTGAGACTGGCCCTGTGACGTCTGGTGAAGTTGGTCCCCCTGGTCCCCCTGGCCCTGTGGCGAGAAAGGAT
CCCCCTGGTGCTGATGGTCTGTGGTGCTCCTGGTACTCCCCGGCCTCAAGGTATTGCTGGACAGCGTGGTGTTG
TCGGCCTGCCTGGTGACAGAGGAGAGAGAGGCTTCCCTGGTCTTCCCTGGCCCCCTGTGGTGAACCTGGCAAACAAG
GTCCCTCTGGAGCAAGTGGTGAACGTGGTCCCCCTGGTCCCATGGGCCCCCTGGATTGGCTGGACCCCTGGTG
AATCTGGACGTGAGGGGGCTCCTGGTGCCGAAGGTTCCTGGACGAGACGGTCTCCTGGCGCCAAGGGTGACC
GTGGTGAGACCGGCCCGCTGGACCCCTGGTGCTCCTGGTGCTCCTGGTGCCCTGGCCCCGTGGCCCTGTCTG
GCAAGAGTGGTGATCGTGGTGAGACTGGTCTGTGGTCCCACCGGTCTGTGGGCCCTGTTGGCGCCCGTGGCC
CCGCCGACCCCAAGGCCCGCTGGTGACAAGGGTGAGACAGGCGAACAGGGCGACAGAGGCATAAAGGGTCAAC
GTGGCTTCTGTGGCTCCAGGGTCCCCCTGGCCCTCCTGGTCTCCTGGTGAAACAAGGTCCCTCTGGAGCCTCTG
GTCTGTGGTCCCCGAGGTCCCCCTGGCTGTGTGGTGCTCCTGGCAAAGATGGACTCAACGGTCTCCTGGCC

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FIGURE 4916B

CCATTGGGCCCCCTGGTCCTCGCGGTGCGCACTGGTGATGCTGGTCCTGTTGGTCCCCCGGCCCTCCTGGACCTC
CTGGTCCCCCTGGTCCTCCCAGCGCTGGTTTCGACTTCAGCTTCCTGCCCCAGCCACCTCAAGAGAAGGCTCAGC
ATGGTGGCCGCTACTACCGGGCTGATGATGCCAATGTGGTTCGTGACCGTGACCTCGAGGTGGACACCACCTCA
AGAGCCTGAGCCAGCAGATCGAGAATCCGGAGCCAGAGGGCAGCCGCAAGAACCCCGCCGCACCTGCCGTG
ACCTCAAGATGTGCCACTCTGACTGGAAGAGTGGAGAGTACTGGATTGACCCCAACCAAGGCTGCAACCTGGATG
CCATCAAAGTCTTCTGCAACATGGAGACTGGTGAGACCTGCGTGTACCCCACTCAGCCCAGTGTGGCCCAAGA
ACTGGTACATCAGCAAGAACCCCAAGGACAAGAGGCATGTCTGGTTCGGCGAGAGCATGACCGATGGATTCCAGT
TCGAGTATGGCGGCCAGGGCTCCGACCCTGCCGATGTGGCCATCCAGCTGACCTTCCTGCGCCTGATGTCCACCG
AGGCCTCCCAGAACATCACCTACCCTGCAAGAACAGCGTGGCCTACATGGACCAGCAGACTGGCAACCTCAAGA
AGGCCTGCTCCTCCAGGGCTCCAACGAGATCGAGATCCGCGCCGAGGGCAACAGCCGCTTCACCTACAGCGTCA
CTGTGATGGCTGCACGAGTCACACCGGAGCCTGGGGCAAGACAGTGATTGAATACAAAACCAAGACCTCCC
GCCTGCCCATCATCGATGTGGCCCCCTTGGACGTTGGTGCCCCAGACCAGGAATTCGGCTTCGACGTTGGCCCTG
TCTGCTTCTGTAACTCCCTCCATCCCAACCTGGCTCCCTCCCAACCAACCACTTTCCCCCAACCCGGAAC
AGACAAGCAACCCAACTGAACCCCTCAAAAGCCAAAAAATGGGAGACAATTTACATGGACTTTGGAAAATAT
TTTTTCTTTGCAATCATCTCTCAAACCTAGTTTTTATCTTTGACCAACCGAACATGACCAAAAACCAAAAGTG
CATTCAACCTTACCAAAAAAAAAAAAAAAAAAAGAATAAAATAAACTTTTTAAAAAGGAAGCTTGGTCCACT
TGCTTGAAGACCCATGCGGGGGTAAGTCCCTTTCTGCCCCTTGGGCTTATGAAACCCCAATGCTGCCCTTTCTGC
TCCTTTCTCCACACCCCTTGGGGCCTCCCTCCACTCCTTCCCAATCTGTCTCCCCAGAAGACACAGGAAAC
AATGTATTGTCTGCCAGCAATCAAAGGCAATGCTCAAACACCCAAGTGGCCCCCACCCTCAGCCCGCTCCTGCC
CGCCCAGCACCCCAAGGCCCTGGGGGACCTGGGGTCTCAGACTGCCAAAGAAGCCTTGCCATCTGGCGCTCCCA
TGGCTCTTGCAACATCTCCCCITCGTTTTTGGGGGGTCAATGCCGGGGGAGCCACCAGCCCCTCACTGGGTTCGG
AGGAGAGTCAGGAAGGGCCACGACAAAGCAGAAACATCGGATTTGGGGAACGCGTGTCAATCCCTTGTGCCGAG
GGCTGGGCGGGAGAGACTGTTCGTTCCTTGTGTAAGTGTGTTGCTGAAAGACTACCTCGTTCTTGTCTTGATGT
GTCACCGGGGCAACTGCCTGGGGGCGGGGATGGGGGAGGGTGGAAGCGGCTCCCCATTTTATACCAAGGTGCT
ACATCTATGTGATGGGTGGGGTGGGGAGGGAATCACTGGTGCTATAGAAATTGAGATGCCCCCCCAGGCCAGCAA
ATGTTCCCTTTTGTTCAAAGTCTATTTTTATTCCCTTGATATTTTTCTTTTTTTTTTTTTTTTTTTTGTGGATGGG
ACTTGTGAATTTTCTAAAGGTGCTATTTAATATGGGAGGAGAGCGTGTGCGGCTCCAGCCCAGCCCGCTGCTCA
CTTCCACCTCTCTCCACCTGCCTCTGGCTTCTCAGGCCTCTGCTCTCCGACCTCTCTCTCTGAAACCTCCT
CCACAGCTGCAGCCCATCTCCCGGCTCCCTCCTAGTCTGTCTGCGTCTCTGTCCCCGGGTTTCAGAGACAAC
TCCCAAAGCACAAAGCAGTTTTTCCCCCTAGGGGTGGGAGGAAGCAAAAGACTCTGTACCTATTTTGTATGTGT
ATAATAATTTGAGATGTTTTTAATTATTTTGATTGCTGGAATAAAGCATGTGGAATGACCCAAACATAA

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FIGURE 4917

CCTGTTGCTGATGCTGCCGTGCGGTACTTGTCTATGGAGCTGGCACTGCGGCGCTCTCCCGTCCCGCGGTGGTTGC
TGCTGCTGCCGTGCTGCTGGGCCTGAACGCAGGAGCTGTCATTGACTGGCCACAGAGGAGGGCAAGGAAGTAT
GGGATTATGTGACGGTCCGCAAGGATGCCTACATGTTCTGGTGGCTCTATTATGCCACCAACTCCTGCAAGAACT
TCTCAGAACTGCCCTGGTTCATGTGGCTTCAGGGCGGTCCAGGCGGTTCTAGCACTGGATTGGAACCTTTGAGG
AAATTGGGCCCCCTTGACAGTGATCTCAAACCACGGAAAACCACTGGCTCCAGGCTGCCAGTCTCCTATTTGTGG
ATAATCCCGTGGGCACTGGGTTCAGTTATGTGAATGGTAGTGGTGCCATAGCCAAGGACCTGGCTATGGTGGCTT
CAGACATGATGGTTCTCCTGAAGACCTTCTTCAGTTGCCACAAAGAATTCCAGACAGTTCCATTCTACATTTTCT
CAGAGTCTATGGAGGAAAAATGGCAGCTGGCATTGGTCTAGAGCTTTATAAGGCCATTAGCGAGGGACCATCA
AGTGCAACTTTGCGGGGGTTGCCTTGGGTGATTCTCGGATCTCCCCCGTGGATTCCGGTGCTCTCCTGGGGACCTT
ACCTGTACAGCATGTCTCTTCTCGAAGACAAAGGTCTGGCAGAGGTGTCTAAGGTTGCAGAGCAAGTACTGAATG
CCGTAAATAAGGGGCTCTACAGAGAGGCCACAGAGCTGTGGGGGAAAGCAGAAATGATCATTGAACAGAACACAG
ATGGGGTGAACCTTCTATAACATCTTAACATAAAGCACTCCACGCTCTACAATGGAGTCGAGTCTAGAATTCACAC
AGAGCCACCTAGTTTGTCTTTGTGTCAGCGCCACGTGAGACACCTACAACGAGATGCCTTAAGCCAGCTCATGAATG
GCCCCATCAGAAAGAAGCTCAAAATTATTCCTGAGGATCAATCCTGGGGAGGCCAGGCTACCAACGTCTTTGTGA
ACATGGAGGAGGACTTCATGAAGCCAGTCATTAGCATTGTGGACGAGTTGCTGGAGGCAGGGATCAACGTGACGG
TGTATAATGGACAGCTGGATCTCATCGTAGATACCATGGGTCAGGAGGCCTGGGTGCGGAACTGAAGTGGCCAG
AACTGCCTAAATTGAGTCAGCTGAAGTGAAGGCCCTGTACAGTGACCCTAAATCTTTGGAACATCTGCTTTTG
TCAAGTCTTACAAGAACCTTGCTTTCTACTGGATTCTGAAAGCTGGTCATATGGTTCCTTCTGACCAAGGGGACA
TGGCTCTGAAGATGATGAGACTGGTGACTCAGCAAGAAATAGGATGGATGGGGCTGGAGATGAGCTGGTTTGGCCT
TGGGGCACAGAGCTGAGCTGAGGCCGCTGAAGCTGTAGGAAGCGCCATTCTTCCCTGTATCTAACTGGGGCTGTG
ATCAAGAAGGTTCTGACCAGCTTCTGCAGAGGATAAAATCATTGTCTCTGGAGGCAATTTGGAATTATTTCTGC
TTCTTAAAAAAACCTAAGATTTTTTAAAAAATTGATTTGTTTTGATCAAAATAAAGGATGATAATAGATATTATT
TTTTCTTATGACAGAAGCAAATGATGTGATTTATAGAAAACTGGGAAATACAGGTACCCAAAGAGTAAATCAAC
ATCTGTATACCCCTTCCCAGGGGTAAGCACTGTTACCAATTTAGCATATGTCCTTGAGAATTTTTTTTTCTAT
ATATACATATATATTTTTTACCAAAATGAATCATTACTCTATGTTGTTTTACTATTTGTTTGACATATCAGTATA
TCTGAAACACCTTTTCATGTCAATAAATGTTCTTCTCTAACATTAA

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FIGURE 4918

MELALRRSPVPRWLLLLPLLLGLNAGAVIDWPTEEGKEVWDYVTVRKDAYMFWWLYYATNSCKNFSELPLVMWLQ
GGPGGSSTGFGNFEEIGPLDSDLKPRKTTWLQAASLLFVDNPFVGTGFSYVNGSGAYAKDLAMVASDMMVLLKTFF
SCHKEFQTVPFYIFSESYGGKMAAGIGLELYKAIQRGTIKCNFAGVALGDSWISPVDSVLSWGPYLYSMSLLEDK
GLAEVSKVAEQVLNAVNGLYREATLWGKAEMIEQNTDGVNFYNILTKSTPTSTMESLEFTQSHLVCLCQRH
VRHLQRDALSQLMNGPIRKKLKIIPEDQSWGGQATNVFVNMEEDFMKPVISIVDELLEAGINVTVYNGQLDLIVD
TMGQEAWVRKLKWPELPKFSQKWKALYSDPKSLETSAFVKSYKNLAFYWILKAGHMVPSDQGDMALKMMRLVTQ
QE

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FIGURE 4919

CCGGACTGCGGAAGG**ATG**GAGCTGGCCGCCGGAAGCTTCTCGGAGGAGCAGTTCTGGGAGGCCTGCGCCGAGCTC
CAGCAGCCCGCTCTGGCCGGGGCCGACTGGCAGCTCCTAGTGGAGACCTCGGGCATCAGCATCTACCGGCTGCTG
GACAAGAAGACTGGACTTCATGAGTATAAAGTCTTTGGTGTTCTGGAGGACTGCTCACCAACTCTACTGGCAGAC
ATCTATATGGACTCAGATTACAGAAAACAATGGGACCAGTATGTTAAAGAACTCTATGAACAAGAATGCAACGGA
GAGACTGTGGTCTACTGGGAAGTGAAGTACCCTTTTCCCATGTCCAACAGAGACTATGTCTACCTTCGGCAGCGG
CGAGACCTGGACATGGAAGGGAGGAAGATCCATGTGATCCTGGCCCGGAGCACCTCCATGCCTCAGCTTGGCGAG
AGGTCTGGGGTGATCCGGGTGAAGCAATACAAGCAGAGCCTGGCGATTGAGAGTGACGGCAAGAAGGGGAGCAAA
GTTTTTCATGTATTACTTCGATAACCCGGGTGGCCAAATTCGTCCTGGCTCATTAACTGGGCCGCCAAGAATGGA
GTTCTTAACCTTCTTGAAAGACATGGCAAGAGCCTGTCAGAACTACCTCAAGAAAACCT**TA**AGAAAGAGAAGCTGGGA
ACATTGCATCCATGGGTGATGTCTCTGGAAGTGCAACCACCCCAATGTCTCTGGAAGTGCCACCTGGAAGTGCCA
CCTGGAAGTGCTCTGGAAGAGCACCCACCCTGTTGAGCCTTCCCCTGCTGTTTCTGTCTTCAGAGGCCTACAC
ACTACCACATCCTTTCTAAGCATGTTTGCCTGACATCCAGCTCACTCGTCTGCTTCCTTTCTCGCTCCCCCATC
CTGGGCTGGGCTGCCTTCTTCTACAGTTCAATATGGGGCAGACTAGGGAAACCTTTGCTTGCTTACTATTAGGAG
GGGAAGTCTTCAGTAGGGAACACGATCATTCCATTGTGCAATTTTACGGGGATGGGTGGGCGGAGGGACACAACA
AAATTTAAGAATGACTATTTGGGCGGGCTGGCTCTTTTGCAGCTTGATTTCTTCCAGCTTGGGAGGGGCTGCT
GGAAGTGGCATTTCGTTTCAGAGCTGACTTTCAGTGCACCCAACTGGATGACGTGCCAATGTCCATTTGCCTTAT
GCTTTGTGGAGCTGATTAGGCTGGGATTTGAGGTGATAATCCAGTAAGTCTTTCCTCGTTCCTACTTGTGGAGGA
TCAGTAGCTGTTATGATGCCAGACCAATTTGGAGAAGTATCAGAGGCCTGACCGGACACATAATACGACAACCACA
TTTTTCCTCATCATCCATGAGGAAATGGATGATTTCTCTTTTCCATATGTCACTGGGGGAAAGGCTGCCTGTACC
TCTCAAGCTTTGCATTTTACTGGAACTGAGGCGTCAAGATGGCTGTGGCAGCTAGCAAAAGCAAAGATGCTTTG
TGCATAGCCTTGTGAAAAAGTATCTTTCTATGCAATAAGATGAATTTTCTCCAGAATATTTAGAAATGTAGAA
GGGATAACAGTTCACAGCCAGGTAAATTTAACTGGTGGCTTAATGACTCTGCACCTTTTTCTCAGGAATTCTGC
CTAAGTTGTCTGCCTTTTCTACCACCAAAAAGACTTTTAGTTTTCTATGCTTTCTCCTGAATTTTGGTAGGGTAA
GTATTTCTATGTCAAAGGCACAGCCTTGATGATCTCAGGGAAAAATTTAATCACTGTGTATAATGATACTGAAC
CTTGATTAATAACAGAAATTCAGGATGTAAGCCACAGAATGGGATTTATTAATGTGGGATACCTCAGACTGTTT,
GTTTTCTTCTGGGAAGAAAAGTGTGTTCTATAATGAATAAATATAGAGTGTTTTT

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FIGURE 4920

MELAAGSFSEEQFWEACAELOQPALAGADWQLLVETSGISISYRLLDKKTGLHEYKVFGVLEDCSPTLLADIYMS
DYRKQWDQYVKELYEQECNGETVVYWEVKYFFPMSNRDYVYLRQRRDLMEGRKIHVILARSTSMPLGERSGVI
RVKQYKQSLAIESDGKKGSKVFMYYFDNPGGQIPSWLINWAAKNGVPNFLKDMARACQNYLKKT

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FIGURE 4921A

CCGCCCCCGACCCGAGCTCTTTCTGCTGCCTGCCAGTTTCCTGCGTCCCCGGAGAGGATCCTGCTGAGCCCAGCC
TCCCCCTCCCCTTCTCCTCCTCCTCCTTGGAGAGCCCGGGCAGCCACTGCCCCGAGCCCCAGTGACAGGAGGA
GACCATAACCCCGACAGCGCCATGCGCCAGATTCTGCCAATTCGTTTTAGGAGCATCTCCAGCTCCAGAACCT
GGGTATCAACCCAGCAAACATTGGCTTCAGTACCTGACTATGGAGTCTGACAAATTCATCTGCATTAGAGAAAA
AGTAGGAGAGCAGGCCAGGTGGTAATCATTGATATGAATGACCCAAGTAATCCAATTCGAAGACCAATTTAGC
AGACAGCGCCATCATGAATCCAGCTAGCAAAGTAATTGCACTGAAAGCTGGGAAAACCTCTTCAGATTTTTAACAT
TGAAATGAAAAGTAAAATGAAGGCTCATACCATGACTGATGATGTACCTTTTGGAAATGGATCTCTTTGAATAC
GGTTGCTCTTGTTACGGATAATGCAGTTTATCACTGGAGTATGGAAGGAGAGTCTCAGCCAGTGAAAATGTTTGA
TCGCCATTCTAGCCTTGCAGGGTGCCAGATTATCAATTACCGTACAGATGCAAAACAAAAGTGGTTACTTCTGAC
TGGTATATCTGCACAGCAAAATCGTGTGGTGGGAGCTATGCAGCTATATTCTGTAGATAGGAAAGTGTCTCAGCC
CATTGAAGGACATGCAGCTAGCTTTGCACAGTTAAGATGGAAGGAAATGCAGAAGAATCAACGTTATTTTTGTTT
TGCAGTTCGGGGCCAAGCTGGAGGGAAGTTACATATTATTGAAGTTGGCACACCACCTACAGGGAACAGCCCTT
TCCAAAGAAGGCAGTGGATGTCTTCTTCTCCAGAAGCACAAAATGATTTTCTGTTGCAATGCAGATCAGTGA
AAAGCATGATGTGGTGTCTTGATAACCAAGTATGGTTATATCCACCTCTATGATCTTGAGACTGGTACCTGCAT
CTACATGAATAGAATCAGTGGAGAAACAATTTTGTACTGCACCTCATGAAGCCACAGCTGGAATAATTGGAGT
AAACAGAAAAGGGACAAGTTCTGTCAGTGTGTGTGGAAGAAGAAAACATAATTCCTTACATCACCAATGTTCTACA
AAATCCTGATTTGGCTCTGAGAAATGGCTGTACGTAATAACTTAGCCGGTGCTGAAGAACTCTTTGCCCGGAAATT
TAATGCTCTTTTTGCCAGGGAAATTACTCGGAGGCAGCAAAGGTGGCTGCTAATGCACCAAAGGGAATTCTTCG
TACTCCAGACACTATCCGTCGGTTCAGAGTGTCCAGCCCCAGCCAGGTCAAACCTTCTCCTCTACTTCAGTACTT
TGGTATCCTTTTGGACCAGGGACAGCTCAACAAATACGAATCCTTAGAGCTTTGTAGGCCTGTACTTCAGCAAGG
GCGAAAAACAGCTTTTGGAGAAATGGTTAAAAGAAGATAAGCTGGAATGTTCTGAAGAACTGGGTGATCTTGTGAA
ATCTGTGGACCCTACATTGGCACTTAGTGTGTACCTAAGGGCTAACGTCCCAAATAAAGTCATTAGTGCTTTTGC
AGAAACAGGTCAAGTCCAAAAGATTGTTTTATATGCTAAAAAAGTTGGATACACTCCAGATTGGATATTTCTGCT
GAGAAATGTAATGCGAATCAGTCCAGATCAGGGACAGCAGTTTGCCCAAATGTTAGTTCAAGATGAAGAGCCTCT
TGCTGACATCACACAGATTGTAGATGTCTTTATGGAATACAATCTAATTCAGCAGTGTACTGCATTCTTGCTTGA
TGCTCTGAAGAATAATCGCCCATCTGAAGGTCTTTACAGACGCGGTTACTTGAGATGAACCTTATGCATGCGCC
TCAAGTTGCAGATGCTATTCTAGGCAATCAGATGTTTACACATTATGACCGGGCTCATATTGCTCAACTGTGTGA
AAAGGCTGGCCTACTGCAGCGTGCAATTAGAACATTTCACTGATTTATATGATATAAAACGTGCAGTGGTTTACAC
CCATCTTCTTAACCTGAGTGGTTAGTCAACTACTTTGGTTCTTATCAGTAGAAGACTCCCTAGAATGTCTCAG
AGCCATGCTGTCTGCCAACATCCGTGAGAATCTGCAGATTTGTGTTTCAAGGTGGCTTCTAAATATCATGAACACT
GTCAACTCAGTCTCTGATTGAACCTTTTGAATCTTTCAAGAGTTTTGAAGGTCTCTTTTATTTTCTGGGATCCAT
TGTTAACTTTAGCCAGGACCCAGATGTGCACCTTTAAATATATTAGGCAGCTTGCAAGACTGGGCAATCAAAGA
AGTAGAAAGAACTCTGTAGAGAAAGCAACTGCTACGATCCTGAGCGAGTCAAGAATTTTCTTAAGGAAGCAAACT
AACAGATCAGCTACCACTTATCATTGTGTGTGATCGATTTGACTTTGTCCATGATTTGGTGTCTATTTATATAG
AAATAATCTTCAAAAGTATATAGAGATATATGTACAGAAGGTGAATCCAAGTCGACTTCCTGTAGTTATTGGAGG
ATTACTTGATGTTGACTGTTCTGAAGATGTCAAAAAAAGTATTGATTCTTGTTGTAAGAGGTCAATCTCTACTGA
TGAGCTTGTTGCTGAGGTTGAAAAAAGAAACAGATTGAAACTGCTTCTGCCTTGGCTAGAGGCCAGAATTCATGA
GGGCTGTGAGGAGCCTGCTACTCACAATGCCTTAGCCAAAATCTACATAGACAGTAATAACAACCCGGAGAGATT
TCTTCGTGAAAATCCCTACTATGACAGTCGCGTTGTTGGAAAGTATTGTGAGAAGAGAGATCCACATCTGGCCTG
TGTTGCTTATGAACGTGGCCAATGTGATCTGGAACCTATTAAATGTTTGCAATGAGAATTCCTCTTCAAAAGTCT
TTCTCGCTACCTGGTACGTGGAAGGATCCAGAATTGTGGGGCAGCGTGCTGCTGGAAAGCAATCCTTACAGGAG
ACCCCTAATTGACCAGGTTGTACAAACAGCTTTGCTGTGAGACTCAGGACCCTGAAGAAGTGTGAGTAACTGTAAA
GGCTTTTATGACGCTCAGACCTTCTTAATGAACCTATTGAACGCTGGAGAAAATTGTCCTTGATAACTCTGTATT
CAGTGAACACAGGAATCTGCAAAACCTCCTTATCTCTACTGCAATTAAGGCTGACCGTACACGTGTTATGGAGTA
TATTAACCGCCTGGATAATTATGATGCCCCAGATATTGCCAATATCGCCATCAGCAATGAGCTGTTTGAAGAAGC
ATTTGCCATTTTCCGGAAATTTGATGTCAATACTTCAGCAGTTCAGGTCTTAATTGAGCATATTGGAACTTGGA
TCGGGCATATGAGTTTGTGTAACGTTGCAATGAACCTGCGGTCTGGAGTCAACTTGCAAAAGCCAGTTGCAGAA
AGGAATGGTGAAAGAAGCCATTGATTCTTATATCAAAGCAGATGATCCTTCTCTACATGGAAGTTGTTCAGGC

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FIGURE 4921B

TGCCAATACTAGTGGAAACTGGGAAGAACTGGTGAAGTACTTGCAGATGGCCCCGTAAGAAGGCTCGAGAGTCCTA
TGTGGAGACAGAAGCTGATATTCGCACTGGCTAAAAACAAACCGCCTTGCAGAGTTAGAAGAATTTATCAATGGACC
AAATAATGCTCATATCCAACAAGTTGGTGACCGTTGTTATGATGAAAAAATGTATGATGCTGCTAAGTTGTTGTA
CAATAATGTTTCCAATTTTGGACGTTTGGCATCTACCCTGGTTCACCTGGGTGAATATCAGGCAGCTGTTGATGG
GGCTAGGAAAGCTAACAGTACTCGAACATGGAAAGAGGTCTGCTTCGCCTGTGTAGATGGGAAAGAATTCGCTCT
TGCTCAGATGTGTGGACTTCATATTGTTGTACATGCAGATGAATTAGAAGAAGCTTATCAACTACTATCAGGATCG
TGGCTATTTTGAAGAGCTGATCACCATGTTGGAAGCAGCACTGGGACTTGAGCGAGCTCACATGGGAATGTTTAC
TGAATTAGCTATTCTATACTCTAAATTTAAGCCTCAGAAAATGAGGGAGCACCTGGAGCTGTTCTGGTCTAGAGT
GAATATTCCCAAGGTGCTAAGAGCTGCAGAACAAAGCTCATCTTTGGGCAGAACTGGTGTGTTTTGTATGACAAGTA
TGAAGAATATGATAATGCCATAATTACCATGATGAATCATCCAAGTATGCCTGGAAAGAAGGGCAATTCAAAGA
TATCATTACCAAGGTTGCCAATGTGGAACATACTACAGAGCAATACAGTTCTACTTAGAATTCAAGCCTCTGTT
GTTAAATGATTTGCTGATGGTGTCTCTCCACGGTTGGATCACACTCGTGCAGTCAATTATTTAGCAAGGTTAA
ACAGCTACCAGTGGTGAACCGTATTTGCGTTTCAGTTCAGAACCATACAACAAATCTGTGAATGAATCATTGAA
CAATCTTTTTATTACAGAAGAAGATTATCAGGCTCTGCGAACATCAATAGATGCTTATGACAACCTTTGACAATAT
CTCGCTTGCTCAGCGTTTGGAAAAACATGAACTCATTGAGTTCAGGAGAATTGCTGCTTATCTCTTCAAAGGCAA
CAATCGCTGGAAACAGAGTGTAGAGCTGTGCAAGAAAGACAGCCTTTACAAGGATGCAATGCAGTATGCTTCTGA
ATCTAAAGATACTGAATTGGCTGAAGAACTCCTGCAGTGGTTTTTGCAGGAAGAAAAAGAGAGTGTCTTGGAGC
TTGTCTGTTTACCTGTTACGATCTTTAAGGCCAGATGTCGTCCTAGAAACTGCATGGAGGCACAATATCATGGA
TTTTGCCATGCCCTATTTTCATCCAGGTCATGAAGGAGTACTTGACAAAGGTGGATAAATTAGATGCTTCAGAATC
ACTGAGAAAAGAAGAAGAACAAGCTACAGAGACACAACCCATTGTTTATGGTCAGCCCCAGTTGATGCTGACAGC
AGGACCCAGTGTTGCCGTCCCTCCCCAGGCACCTTTTGGTTATGGTTATACCGCACCACCGTATGGACAGCCACA
GCCTGGCTTTGGGTACAGCATGTGAGATGAAGCGCTGATCCTGTAGTCACCTATTTTCGTACTGAAACATCGTCT
TTACCCACTTCTCAGTTTATAATGGGGGAAAACAGGCAACGTGTTCTTGTAACCTTTATTTTCATGAAGGACTTCT
TTTTGTTTCTAACTATAAACTTGGATCACCTATGTTAAAACTTATTTTCACATTCCACATCATTTTAGAATTTAT
TTTCGAAGGGGAATAGTTTCAATGTTTATTCACTTGGGCTTTTTTCTTCCCCCTCTTTCTTTAAAGAACTGCT
CAATATTCAATCTGTTGTGAAGAACCTGATTTGCACTCTGTAGTGTTTAAAGAAACAAAGAAACTCTAATATTGA
ATCTCTTAAATTTAGTGTATGTAAACAGCTTACAAATACGTATTGTCTAAATGCATTTAAATCTGTTTTATTCAA
AGAAAAGCTAAAGCAAAAACACTGGCATATGACCATGCAAGACTGTCAGTGCCAACAAAGACAACACTAATCAGC
ACATCGTACACTGGATTGCAGTGCTTCCCAGATTATTGAAAAATGTTACAGACAACCTTGCTGATTTTTTAAATGA
GCGTAAAAGGCCCTCTAACCTATGCAGGTTTCCCCATTATGCATATAGAAAATGCTAGTATGTTTTGCTCACTTC
ATATGTAACAGGTGCCCTTATGTTGTGCTGTATCCTGTGCTTTTTCTGTGGGACCATTCCATTGAGGAGCAAAGA
GCACCATGATTCCAATCTTGTGTGTGTTTACTAACCCTTCCCTGAGGCTTGTGTATGTTGGATATTGTGGTGT
TAGATCACTGAGTGTACAGAAGAGAGAAATTCAAACAAAATATTGCTGTTCTTCAGTTTTGTTTGTGGAATTTGA
AATTACTCAAATTTAAATAAATTACTGGACTGTGG

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FIGURE 4922

MAQILPIRFQEHLLQLQNLGINPANI GFSTLTMESDKFICIREKVGEQAQVVIIDMNDPSNP IRRPISADSAIMNP
ASKVIALKAGKTLQIFNIEMKSKMKAHTMTDDVTFWKWISLNTVALVTDNAVYHWSMEGESQPVKMFDRHSSLAG
CQIINYRTDAKQKWLTLTGISAQONRVVGAMQLYSVDRKVSQPIEGHAASFAQFKMEGNAEESTLFCFAVRGQAG
GKLHIEVGTPTGNQPFPPKAVDVFFPPEAQNDFFVAMQISEKHDVVFLITKYGYIHLYDLETGTICIYMNRI
ETIFVTAPHEATAGIIGVNRKGQVLSVCVEEENIIPYITNVLQNPDLALRMVRRNNLAGAEELFARKFNALFAQG
NYSEAAKVAANAPKGILRTPDTIRRFQSVPAQPGQTSPLLOQYFGILLDQGQLNKYESLELCRPVLOQGRKQLEK
WLKEDKLECSEELGDLVKSVDPTLALSVELRANVPNKVIQCFAETGQVQKIVLYAKKVGYPDWIFLLRNVMRIS
PDQGGQFAQMLVQDEEPLADITQIVDVFMENLIQOCTAFLLDALKNRNPSEGPLQTRLLEMNLMHAPQVADAIL
GNQMFTHYDRAHIAQLCEKAGLLQRALEHFTDLYDIKRAVVHTHLLNPEWLNVYFGSLSVEDSLECLRAMLSANI
RQNLQICVQVASKYHEQLSTQSLIELFESFKSFEGFLFYFLGSIVNFSQDPDVHFYKIIQAACKTGQIKEVERICRE
SNCYDPERVKNFLKEAKLTDLPLIIVCDRDFDVHDLVLYLYRNNLQKYIEIYVQKVNPSRLPVVIGGLLDVDCS
EDVIKNLILVVRGQFSTDELVAEVEKRNRLKLLLPWLEARIHEGCEEPATHNALAKIYIDSNNNPERFLRENPHY
DSRVVGKYCEKRDPLHACVAYERGQCDLELINVCNENSLFKSLSRYLVRKDPPELWGSVLLSNPYRRPLIDQVV
QTALSETQDPPEEVSVTVKAFMTADLPNELIELLEKIVLDNSVFSEHRNLQNLILTAIKADRTRVMEYINRLDNY
DAPDIANIAISNELFEEFAIFRKFDVNTSAVQVLIHIGNLDRAVEFAERCNEPAVWSQLAKAQLQKGMVKEAI
DSYIKADDPSSYMEVVQAANTSGNWEELVKYLQMARKKARESYVETELIFALAKTNRLAELEEFINGPNNNAHIQQ
VGDRCYDEKMYDAKLLYNNVSNFGRLASTLVHLGEYQAAVDGARKANSTRTWKEVCFAVDGKEFRLAQMCGH
IVVHADELEELINYYQDRGYFEELITMLEAALGLERAHMGMTLAILYSKFKPQKMRHLELFWSRVNIPKVL
AAEQAHLWAEVLFLYDKYEEYDNAIITMNHPTDAWKEGQFKDIITKVANVELYYRAIQFYLEFKPLLLNDLLMV
LSPRLDHTRAVNYFSKVKQLPLVKPYLRSVQNHNNKSVNESLNNLFITEEDYQALRTSIDAYDNFDNISLAQRLE
KHELIEFRRIAAYLFKGNRNRWQSVELCKKDSLYKDAMQYASESKDTELAELQLWFLQEEKRECFGACLFCTCYD
LLRPDVVLETAWRHNIMDFAMPYFIQVMKEYLTKVDKLDASESLRKEEQATETQPIVYGQPQLMLTAGPSVAVP
PQAPFGYGYTAPPYGPQPGFGYSM

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FIGURE 4923

TTTCCAGCCCCGGCCCCGGACCCTGCAGCTGCAGAGATGTTGATGCCCTAAGAAGAACTGGATTGCCATTTATGAA
CTCCTTTTTTAAGGAGGGAGTCATGGTGGCCAAGAAGGATGTCCACATGCCCTAAGCACCCGGAGCTGGCAGACAAG
AATGTGCCCAACCTTCATGTCATGAAGGCCATGCAGTCTCTCAAGTGCCGAGGCTACGTGAAAGAACACTTTGCC
TGGAGACATTTCTACTGGTACCTTACCAATGAGTGTATCCAGTATCTCCGTGATTACCTTCATCTGCCCCCGGAG
ATTGTGCCTGCCACCCTACGCCGTAGCCGTCCAGAGACTGGCAGGCCCTCGGCCCTAAAGGTCTGTATATGAGGAGT
GCTGTGCTACCTGGTGGCGACAAGAAAGCCGAGGCTGGGGCTGGGTCAGCAACCGAATTCTAGTTTAGAGGCGGA
TTTGTTGTGGACGTGGTCAGCCACCTCAGTAAACTGGAGAGGATTCTTTTGATTGAATAAATTTACAGCCAA
AAAA

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FIGURE 4924

AACCGGCGCCAGCCATGGCCTCTGGGGCGGGCGGAAGCTGGGGTCGCTCCCCACCGCAGAGCGCAGTCCCGACGC
CCTGGGTACCTTCCTGCAGCCCCCTCTCGTGGGCCGTCCACCTGCGCCCCCGCAGCCAGGCCGCGTGAAGGAAG
ACCTGCTGGAAGTATGATGCTGCAGAACGCGCAGATGCACCAGCTGCTGCTGAGTCGCCTGGTGGCTGGAGCGC
TGCAGCCCCCGCCTGCCCTCGCCCTGCCCTCAGGTCTACCTGGAGGTTCCACAGGAAGAGCCTGAGGAGGAGGAGG
AGGAGATGGACGTGCGGGAGAAAGGGCCTTTGGTGTTCACCACTACTTGGCCCTATTTGATGCCCTCCCCGG
GTGCCCTGCTGCCCTGGCCAGCCCCCTTCTTCCCCACCCCTGCTTGTGAGCCCTACTTGCAGGACGTGCCAGGA
TTCAGCACTGTCTGCCCTCCAGGGAAGGGAGGTGAGAGCTGTGCCCCACCCCAACCCCACTGTCACAGGGA
CTGTGGGTGCTGATGTACCCCGGCTTCAGACTACTATGATGCCGAGAGCCTCCTATGAGGACAGACCCCGGCC
TGGAAGTGCACCAGCTTCCTGCTCTGGATACAGCCCCGAGCCGCTCCTGCACCTCTCTTGTGACTCCCCGG
TGCCCATGGCTGGCAGTCTTCTCACTCCCTCAACCTCAGCCAGGCCCTCTTCTCTGGGGAATCAGTCCCTGC
CCCACGCCAATGAGTTCCTGGACGGGCCGGATCTGTGCTGTTGTGTAAGAGCTCCCTAGAGCACCACCCAGGCC
TTGAAGCCACGTGAGCCGCCCTCTGCCCACTGCTTCTGCTGGAGCAGGGGGAGGCTGGGAACAGAGCCCC
ACCCTCTCTCCCTCACCCTCTCTCTGGGATGATGAGGTCTCCTTCCAGCCTAGTAATGGAGCAAGAGGGGAGGG
GGGGATTCTTCTGCTTTCCACAGCTTTGAAGGCCCTTTGAGGTGGCTGGAGGGGCCAGAGTGGTCGGGGAGA
GACTTTGCTGGGCAGCGCCCCGAGCAGAGTCAGTTCGCTGGGCCCCCAACCCCTCATCCCAGGAAGCAGCTCTG
TTGGCAGAAAGGAGAGGTGAGAGCTTTGTCTGCTGTGGCCAGGAGTGGCCTGAGGTCTCTGGGGCCAGGTGGG
AACAGTGTGCTCTGCCCCCTGGGCCAGGGTGTGTTCCCCCAACCTCCCTCAGTAGCAATGAGCTACTCGGGC
CAGATGGGGGCTGTGTCATGGGCTGGGAGGCCCTGTGAAGGAGAGGGTGGGGAGGGAGGCATCTAGGGAGAGG
GGTCCCCCATGGTGGCTCCCCCTCCCTGGCCATTGTTATCCCAGGAGGAGACACTGTGGGCACAGGGCTAAGTCCA
GGTGTGTTGATTTCGGGCTAGAAAAGGCAATGTCCAAGTCTCTGCTGCTGTACAGTCCTTCAGCCAGGGCTGG
ACCTCAACCTGAGGAGTCACACTGAGTTCAGTGACCACCGTGGTGGTGGCCATGCCACTCATGGTTGCTATGG
CCGGAAGGCCTGGGGCAGCCTCCTCCAAGCCGCTCGCACCCCGTAGGTGCCCATCCGCTGCTGGCGCAAGTGCTG
GCCGAAGATGAAGCAGAGCAGGACAGATGTACGAACAGGGACAGCAACACCGACACCACCGTGACTATGATGAC
CATCTGGCTGTCCGACACAGGCTCTGGGGAGGGAGGGGGCAAGGGTCTTAGACGTCTGTGATCCAGTTACCAG
GGACCAAAAGGGAGTGGAAGTCCACCCCCAACCCAGACCCCCAGACCCCGCCGCTCATGCATCCAGCAGTC
ACCCAGTTGCAGAGATGAGTGGTGAATGGTGTCTGCATTAAAAATATTATCTGGAAAAAGGTGGCCCAGGGCT
CAGGCTACCAGCTGGACTTCTGTGTGGCTGTGAGGGCAGATGTCCCTTGTGTCAGCAGCCATGGGACCAGTGTGTA
GCTGCTGGACACCGTGGCCTGGAGGGTGGCATGGTCCAGCCAAGCCCTTCTTGGGCAGAGCTGAGTGAACCTC
ATGCCAGGCTCCCTGTGTGCCGGCCGTCCAGGGTCACCAAGCAGCAGAGCTCTGGGGACCTCAGTGGGGGCAGTC
AGGCCAACTTCTCATTTGTGGAGGGGAGCCAAGGCCAGGGAGAGCCGTCAAGGTTCATGGGGCTTGATGGTGGCCG
AGGAACTAGTTGACCTCTCCCCGACCTCTGGAGCAGTTGAGGTCCAAGCTGGGGACTTGGAAGAAGCTTCAGGGAA
GAGGGAGAGTAAGAGGGAAGCCTCAGGATGAAGGGTGGGCTCCTGGGTGTTTGCTTCCCAAGTGGGACTCAAGAT
TTTTCTTCCCCGAGGGGCTGAAAGTGACTTATCACTCCCAACTCCATCCACGGATCCCCCTCACCATAGATCT
CCAACATCTTCGGGGCTGAGTGTGTTGTGAAAGATGTTGCCACCGCGAGACATCAAGTCCAGCACAGCCAGGCAGG
AGAAGTTGCGGTGGCCATCCTCTCTGTGAGCCGTGCTGTTGAATGTGGCTGTGGCCTCCTGCGGAGCAGGGGCTG
CCTTCCCGAAGGTCTCATAGTGACAGTCTCATTGCCACGGAACAGGAAGAGGGTGGGCTGTCCAGGGGCTCCA
CGGTGGGCACCCCTGCACTCAATGGTGAAGGACTTGCCACAGCCACCAAGTGGGTGTCAGTGTGAGGATGACCT
GCCTTGGAGGCTCTGCAGGGGACAAAGGAGGGAGGTCTGGTCAGGATGGGGGTGTCAGTCCCAGCAGCCTCCCCCT
GGCCAGGGCCATCTCCTGTACCATGGTGTTCACGGTTGGGGAGGAGGTGGCCTGGCCGGCTCCAGTGCAGAGA
GGAAGAGGGCAGCAGTTGAGGATGGAGGCTGGACTGTGTGGTAGTTTTACAGACATGATGGTTTCCGGTGACCAG
GTGTCTACAAGGACAAGGTTTCAAGAAATGTACAGCCAAGTGGAAAGATATAAAAGTTTGGGTCTGTCTCCTCTCC
TTCAGAAATGAAATATAAAATTTCAAACATTAAACAGTTGGGTGATCACGTTG

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FIGURE 4925

MASGAGGSWGRSP PQSAVPTPWVTF LQPLSWAVPPAPPQGRVKEDLLELMMLQNAQMHQLLSRLVAGALQPRP
ASPCPQVYLEVPQEEPEEEEEEMDVREKGPLVFHHHYLPYLMPSPGALLPWPAPFFFTPACQPYLQDVPRIQHCP
ASREREVRVPPPPPSATGTVGADVPPASDYDAESLL

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FIGURE 4926

GGCGGCCAAACCTCCGGAGGCCGGGGACGGAAGCGGGCCCCGAGCAGATCCTGGATCCGGAATCTCCCGGGCAG
GAGCGGAATCTGTCCCGAACCGGGTCTGTGAGGAACTCGCGAACTTGGATTAGGAAATCCCGGAGCCCCGGATCGA
CAAATCCCGGAACCCGGAATTAAGATCGCCAAGTCCCGGATCGCGGAGCACAGAGCACGGAGTGGACTCGACGCG
GAGCCCGGAGTCCGGATCGCGGCACCGCGGGACGGGACGGAGCGATGTCGGGCCGAGGCGGGCGGGTTCCCGC
TGCCCCCGCTAAGCCCTGGCGGGCGCGCGTGGCTGCGGCCCTGGGAGCGCCGCTCCCCCGCGGGACCCGGCA
TGCTGCCCGGACCGGCGCTCCGGGGACCGGTCCGGCAGGAGGCGTGGGGGGCCCCGGGGCCCGCCCTTCCGCC
CCATGGGCCCCGCGGGCCCCGCGGCGCAGTACCAGCGACCTGGCATGTCACCAGGGAACCGGATGCCCATGGCTG
GCTTGCGAGGTGGGACCCCTGCTGGCTCCCCATTTGGTGCAGCAGCTCCGCTTCGACCTGGCATGCCACCCACCA
TGATGGATCCATTCCGAAAACGCCTGCTTGTGCCCCAGGCGCAGCCTCCCATGCCTGCCAGCGCCGGGGGTAA
AGAGGAGGAAGATGGCAGATAAGGTTCTACCTCAGCGAATCCGGGAGCTTGTTCAGAGTCTCAGGCGTACATGG
ATCTCTTGGCTTTTGAGCGGAAGCTGGACCAGACCAATTGCTCGCAAGCGGATGGAGATCCAGGAGGCCATCAAAA
AGCCTCTGACACAAAAGCGAAAGCTTCGGATCTACATTTCCAATACGTTTCAGTCCCAGCAAGGCGGAAGGCGATA
GTGCAGGAAGTGCAGGGACCCCTGGGGGAACCCAGCAGGGGACAAGGTGGCTTCTGGGAACTCCGAGTGGAAG
GAAAAGTCTGGATGATCCTAGCAAACAGAAGAGGAAGTTTTCTTCATTCTTTAAGAGCCTCGTCATTGAGCTGG
ACAAGGAGCTGTACGGGCCTGACAATCACCTGGTGGAGTGGCACCGGATGCCACCACCCAGGAGACAGATGGCT
TCCAAGTAAAACGGCCTGGAGACCTCAACGTCAAGTGCACCCCTCCTGCTCATGCTGGATCATCAGCCTCCCCAGT
ACAAATTGGACCCCCGATTGGCAAGGCTGCTGGGAGTGCACACGCAGACGAGGGCCGCCATCATGCAGGCCCTGT
GGCTTTACATCAAGCACAACCAGCTGCAGGATGGGCACGAGCGGGAGTACATCAACTGCAACCGTTACTTCCGCC
AGATCTTCAGTTGTGGCCGACTCCGTTTTCTCCGAGATTCCCATGAAGCTGGCAGGGTTGCTGCAGCATCCAGACC
CCATTGTTCATCAACCATGTCTATTAGTGTGACCCCTAACGACCAGAAGAAGACAGCCTGTTACGACATCGATGTGG
AGGTGGACGACCCACTGAAGGCCCAAATGAGCAATTTTCTGGCCTCTACCACCAATCAGCAGGAGATCGCCTCCC
TTGATGTCAAGATCCATGAGACCATTGAGTCCATCAACCAGCTGAAGACCCAGAGAGATTTTCATGCTCAGTTTTA
GCACCGACCCCCAGGACTTCATCCAGGAATGGCTCCGTTCCAGCGCCGAGACCTCAAGATCATCACTGATGTGA
TTGGAAATCCTGAGGAGGAGAGACGAGCTGCTTTCTACCACCAGCCCTGGGCCCAGGAAGCAGTAGGCAGGCACA
TCTTTGCCAAGGTGCAGCAGCGAAGGCAGGAAGTGAACAGGTGCTGGGAATTCGCCTGACCTAACTGCTCAGGG
ATCTTTCTTCCAGCCCTGGAGCCTGGAGGGAGACCACCTCTGGGTCTTGCTGGGGCCGAGACACGTAGGCT
GGGGTGAGGAGTGTCTGCTGTCAACCTCTACTCTCCAGCTTTAGTCTTATAAATGTAGTGATAGGATTCCTTGT
GCTTGGTCCCCAAAGCCTTATACTTTTTGCATTGGCTTTAATTGGGTTTCAGCAGATGCCTCCTCTGCCCCCTGC
AGGCAGGCCCAAGTAGGACTGCTGGAGGCTGTGCTTTGACATTGTAAGACATTTCCGAACCAAAGGCTGCTGGGT
TTGCATGTTTACAGACTCCCCCTGGGGCGAGGGTCAGAGCTGGCTCTGGGGAGCTGGGCTAGGAAGAGGAGGTGC
AGCCCAGACTCTTCTAGCCTTTCTAAACCAAAGTTCTTTGCCATTCTTACAAGCCAGCCTTGCTGCTGGTTTT
TTCCTTTCTTTGGGTATTTGCACTATTTTGGGAGCAAGTTTTCTATGTGGGAGCCACTTTTTTTGTACAGGGGT
AAGTTGGGGTTTTTCAGGGAGCCTGTTAGGTGCCTCCTTCTTTTCTTCTCAATCTATGCAAGCGGCTCTGGCC
GCCATCATCTCCTGGGATGCCAGAGGGCTGCCTCTCCAGCGGCTTGGGCCGGGGAGGGGACACTCCAGTTCTCTA
GCATGGCCTGAGGTATGGGGTATGTGCATGTGGAGGCCAGGGTAAGGTGAATGGGGAGGCTGGGAGGACTGGTGT
TGCCCTTTGGAGCTTGCTGAGGAGGGTGGGCCTAGGGCTTGGCGAGTGCCACATCTGGCAGGTTTGGAATTTCC
AAATAAATCCTTTTGTCT

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FIGURE 4927

ATGGCGCTTGACGGACCAGAGCAGATGGAGCTGGAGGAGGGGAAGGCAGGCAGCGGACTCCGCCAATATTATCTG
TCCAAGATTGAAGAACTCCAGCTGATTGTGAATGATAAGAGCCAAAACCTCCGGAGGCTGCAGGCACAGAGGAAC
GAACTAAATGCTAAAGTTTCGCCTATTGCGGGAGGAGCTACAGCTGCTGCAGGAGCAGGGCTCCTATGTGGGGGAA
GTAGTCCGGGCCATGGATAAGAAGAAAGTGTGGTCAAGGTACATCCTGAAGGTAAATTGTTGTAGACGTGGAC
AAAAACATTGACATCAATGATGTGACACCCAATTGCCGGGTGGCTCTAAGGAATGACAGCTACACTCTGCACAAG
ATCCTGCCCAACAAGGTAGACCCATTAGTGTCACTGATGATGGTGGAGAAAGTACCAGATTCAACTTATGAGATG
ATTGGTGGACTGGACAAACAGATCAAGGAGATCAAAGAAGTGATCGAGCTGCCTGTTAAGCATCCTGAGCTCTTC
GAAGCACTGGGCATTGCTCAGCCCAAGGGAGTGCTGCTGTATGGACCTCCAGGCACTGGGAAGACACTGTTGGCC
CGGGCTGTGGCTCATCATACGGACTGTACCTTTATTCTGTCTCTGGCTCTGAACGGTACAGAAATTCATAGGG
GAAGGGGCAAGAATGGTGAGGGAGCTGTTTGTCTATGGCACGGGAACATGCTCCATCTATCATCTTCATGGACGAA
ATCGACTCCATCGGCTCCTCGCGGCTGGAGGGGGGTCTGGAGGGGACAGTGAAGTGCAGCGCACGATGCTGGAG
TTGCTCAACCAGCTCGACGGCTTTGAGGCCACCAAGAACATCAAGGTTATCATGGCTACTAATAGGATTGATATC
CTGGACTCGGCACTGCTTCGCCCAGGGCGCATTGACAGAAAAATTGAATTCCCACCCCCCAATGAGGAGGCCCGG
CTGGACATTTTGAAGATTCAATCTCGGAAGATGAACCTGACCCGGGGGATCAACCTGAGAAAAATTGCTGAGCTC
ATGCCAGGAGCATCAGGGGCTGAAGTGAAGGGCGTGTGCACAGAAGCTGGCATGTATGCCCTGCGAGAACGGCGA
GTCCATGTCACTCAGGAGGACTTTGAGATGGCAGTAGCCAAGGTCATGCAGAAGGACAGTGAGAAAAACATGTCC
ATCAAGAAATTATGGAAGT**AG**AGTGGACAGCCTTTGTGTGTATCTCTCCAATAAAGCTCTGTGGGCCAAGTC

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FIGURE 4928

MALDGPEQMELEEGKAGSGLRQYYLSKIEELQLIVNDKSQNLRRLLQAQRNELNAKVRLREELQLLQEQGSYVGE
VVRAMDKKKVLVKVHPEGKFVVDVDKNIDINDVTPNCRVALRNDSTLHKILPNKVDPLVSLMMVEKVPDSTYEM
IGGLDKQIKEIKEVIELPVKHPELFEALGIAQPKGVLLYGPPGTGKTLLARAVAHHTDCTFFIRVSGSELVQKFIG
EGARMVRELFVMAREHAPSIIFMDEIDSIGSSRLEGGSGGDSEVQRTMLELLNQLDGFEATKNIKVIMATNRIDI
LDSALLRPGRIDRKIEFPPPNEEARLDILKIHSRKMNLTRGINLRKIAELMPGASGAEVKGVCTEAGMYALRERR
VHVTQEDFEMAVAKVMQKDSEKNMSIKKLWK

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FIGURE 4929

ATACTTGTGCGGTTCCAAGTGTGGAGAAAGCGGCTCTGGGTCTAGATTGAGGGATACTCCCCCTTTCCACCATGG
GCAAGAAGGGCAAAGTTGGCAAGAGCCGACGAGACAAGTTTTATCACTTGGCGAAGGAGACGGGTTACCGTTCCC
GATCTGCTTTCAAGCTGATCCAGCTCAATCGCCGCTTTTCAGTTCCCTGCAGAAAGCCCGAGCCTTGCTGGACCTGT
GTGCTGCGCCAGGGGGATGGCTGCAGGTAGCTGCCAAGTTTATGCCTGTATCCAGCCTTATTGTGGGAGTGGAAC
TGGTTCCAATCAAGCCTCTCCCCAATGTGGTGACTCTCCAGGAGGACATCACAAACAGAACGTTGTAGGCAGGCCC
TGAGGAAGGAGCTGAAGACCTGGAAGGTTGATGTTGTGCTCAATGATGGGGCCCCAACGTTGGGGCTAGCTGGG
TCCATGATGCTTACTCACAAAGCCATTTGACACTGATGGCTCTACGTTTGGCTTGTGACTTTTTGGCCCGTGGTG
GCAGCTTCATCACAAAGGTTTTCCGTTCTCGTGACTATCAGCCTCTGCTATGGATCTTCAGCAGCTGTTCCGCC
GTGTCCAGGCCACCAAGCCCCAAGCCTCTCGCCATGAATCTGCAGAGATCTTGTAGTCTGCCAAGGATTCTGG
CCCCTGACAAGGTTGACAGTAAATTTTGGACCCCAAATTTGCCTTTAAGGAGGTTGAAGTTACGGCTAAGACCG
TTACTGAATTGGTTACTAAGAAGAAGCCAAAGGCTGAAGGCTATGCTGAGGGTGACCTCACTCTCTATCACCGTA
CCTCAGTCACTGACTTCCTCCGAGCTGCCAACCCTGTTGACTTCCTCTCAAGGCCAGCGAAATCATGGTAGATG
ATGAAGAGTTGGCACAGCATCCAGCTACCCTGAGGACATACGGGTGTGCTGTCAGGACATCAGAGTGTTGGGGC
GCAAGGAGCTCAGGTCGCTACTAACTGGAGAACAAACTTCGGCGATATGTGGCCAAGAAGCTGAAAGAACAAG
CAAAGGCACTGGACATCAGCCTCAGCTCTGGAGAGGAAGATGAAGGTGATGAGGAGGACTCAACAGCTGGAACCA
CAAAGCAGCCCTCTAAGGAGGAGGAGGAAGAGGAGGAGGAGGAACAACCTGAACCAGACCTTGGCAGAAATGAAGG
CCCAGGAGGTGGCGGAATTGAAGAGGAAGAAAAGAGCTGTTGCGTGAGCAGAGAAAGCAGCGGGAGCGTGTGG
AGCTGAAGATGGATCTGCCTGGGGTTTCCATTGCAGACGAGGGGAGACTGGCATGTTCTCCTTGTGCACCATCC
GGGGTCACCAGTTATTAGAGGAAGTAACACAAGGGGATATGAGTGCAGCAGACACATTTCTGTCCGATCTGCCAA
GGGATGATATCTATGTGTCAGATGTTGAGGACGACGGTGATGACACATCTCTGGATAGTGACCTGGATCCAGAGG
AGCTGGCAGGAGTCAGGGGACATCAGGGTCTAAGGGACCAAAAGCGTATGCGACTTACTGAAGTGCAAGATGATA
AAGAGGAGGAGGAGGAGGAGGAATCCACTGCTGGTACCCTGGAGGAAAAGGCAGTACTGCAGGAAGAAACAAGCCA
ACCTGTGGTTCTCAAAGGGCAGCTTTGCTGGGATCGAGGACGATGCCGATGAGGCCCTGGAGATCAGTCAGGCCC
AGCTGTTATTTGAGAACCGGCGGAAGGGACGGCAGCAGCAGCAGAAAGCAGCAGCTGCCACAGACACCCCTTCCT
GTTTGAAGACTGAGATAATGTCTCCCTGTACCAAGATGAAGCCCCTAAGGGAAACAGAGGCTTCTTCGGGGACAG
AAGCTGCCACTGGCCTTGAAGGGGAAGAAAAGGATGGCATCTCAGACAGTGATAGCAGTACTAGCAGTGAGGAAG
AAGAGAGCTGGGAACCCCTCCGTGGTAAGAAGCGAAGCCGTGGGCCTAAGTCAGATGATGACGGGTTTGAGATAG
TGCCTATTGAGGACCCAGCGAAACATCGGATACTGGACCCCGAAGGCCTTGCTCTAGGTGCTGTTATTGCCTCTT
CCAAAAGGCCAAGAGAGACCTCATAGATAACTCCTTCAACCGGTACACATTTAATGAGGATGAGGGGGAGCTTC
CGGAGTGGTTTGTGCAAGAGGAAAAGCAGCACCGGATACGACAGTTGCCTGTTGGTAAGAAGGAGGTGGAGCATT
ACCGGAAACGCTGGCGGGAAATCAATGCACGTCCCATCAAGAAGGTGGCTGAGGCTAAGGCTAGAAAGAAAAGGA
GGATGCTGAAGAGGCTGGAGCAGACCAGGAAGAAGGCAGAAGCCGTGGTGAACACAGTGGACATCTCAGAACGAG
AGAAAGTGGCACAGCTGCGAAGTCTCTACAAGAAGGCTGGGCTTGGCAAGGAGAAACGCCATGTCACCTACGTTG
TAGCCAAAAAAGGTGTGGGCCGCAAAGTGCGCCGGCCAGCTGGAGTCAGAGGTCATTTCAAGGTGGTGGACTCAA
GGATGAAGAAGGACCAAAAGAGCACAGCAACGTAAGGAACAAAAGAAAAACACAAACGGAAGTAAGCAGAGCTGC
CAGGCTCCCAGGAGAGCATGGGGACTAGGAGGAAGGGTGTGGCTAGGCTCAGTCTGGCCCCCTTGATTACCGGCC
TAGCCCCCTGCTCACATCACAGCTGTCTGAAGAACAGTGAGGTGGAGTGCCTAGAACTCCCGTGGTGGTCTGAGC
AGAGAGGAGGATGTCTCTGCTGCTGCTGAAGGTCTCCCATGAAAACTGCTGAAGTGTGTTGACACTCATGAC
CCTTTTTTTAAACCGTTAAAGGGAAGTTCCGTGTTGGAGCGATACTCAATGTAGTCAGTCTACACCTGGACGTGT
GGGCCACTTAAGCCCTCCCCACCCCATCCTATTCTAAATAAAACCAGGATAATGGAAAAAAAAAAAAAAAAA

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FIGURE 4930

MGKKGKVGKSRRDKFYHLAKETGYRSRSFAFKLIQLNRRFQFLQKARALLDLCAAPGGWLQVAAKFMVSSLIVGV
DLVPIKPLPNVVTLQEDITTERCRQALRKELKTWKVDVVLNDGAPNVGASWVHDAYSQAHLTLMALRLACDFLAR
GGSFITKVFRSRDYQPLLWIFQQLFRRVQATKPQASRHESAEIFVVCQGFLAPDKVDSKFFDPKFAFKEVEVQAK
TVTELVTKKKPKAEGYAEGDLTLYHRTSVTDFLRAANPVDFLSKASEIMVDDEELAQHPATTEDIRVCCQDIRVL
GRKELRSLLNWRTKLRRYVAKKLKEQAKALDISLSSGEEDEGDEEDSTAGTTKQPSKEEEEEEEEEQLNQTLAEM
KAQEVAELKRKKKKLLREQRKQREVELKMDLPGVSIADGETGMFSLCTIRGHQLLEEVTQGDMSAADTFLSDL
PRDDIYVSDVEDDGDDTSLSDLDPEELAGVRGHQGLRDQKRMRLTEVQDDKEEEEEENPLLVPLEEKAVLQEEQ
ANLWFSKGSFAGIEDDADEALEISQAQLLFENRRKGRQQQKQQLPQTTPPSCLKTEIMSPLYQDEAPKGTEASSG
TEAATGLEGEKDGISDSSTSSSEEEESWEPLRGKKRSRGPKSDDDGFEIVPIEDPAKHRILDPEGLALGAVIA
SSKKAKRDLIDNSFNRYTFNEDEGELPEWVFQEEKQHRIRQLPVGKKEVEHYRKRWREINARP IKKVAEAKARKK
RRMLKRLEQTRKKA EAVVNTVDISEREKVAQLRSLYKKAGLGKEKRHVTVVAKKGVGRKVRRPAGVRGHFKVVD
SRMKKDQRAQQRKEQKKKHKRK

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[illegible]

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FIGURE 4932

MAEVEDQAARDMKRLEEKDKERKNVKGIRDDIEEEDDQEAYFRYMAENPTAGVVQEEEDNLEYDS DGNPIAPTK
KIIDPLPPIDHSEIDYPPFEKNFYNEHEEITNLTPQQLIDLRHKLNLRVSGAAPPRPGSSFAHFGFDEQLMHQIR
KSEYTQPTPIQCQGVFVALSGRDMIGIAKTGSGKTAAFIWPMLIHIMDQKELEPGDGPIAVIVCPTRELCQQIHA
ECKRFGKAYNLRVAVYGGGSMWEQAKALQEGAEIVVCTPGRLIDHVKKKATNLQRVSYLVFDEADRMFDMGFY
QVRSIASHVRPDRQTLLFSATFRKKIEKLARDILIDPIRVVQGDIGEANEDVTQIVEILHSGPSKWNWLTRLVE
FTSSGSVLLFVTKKANAEELANNLKQEGHNLGLLHGDMQDQSERNKVISDFKKKDIPVLVATDVAARGLDIPSIT
VINYDVARDIDTHTHRIGRTGRAGEKGVAYTLLTPKDSNFAAGDLVRNLEGANQHVSKELLDLAMQNAWFRKSRFK
GGKGKKLNIGGGGLGYRERPGLGSENMDRGNNVMSNYEAYKPSTGAMGDRLTAMKAAFQSQYKSHFVAASLSNQ
KAGSSAAGASGWTSAAGSLNSVPTNSAQQGHNSPDSPVISAAGKIPGFGNTGNISGAPVTYP SAGA QGVNNTASGN
NSREGTGGSNNGKRERYTENRGSSPSQSRRDWQSA

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FIGURE 4933

CCGCCGCCCGGGCCCCGGCATGCAGCCCCGGCTGCGGAGGTGACACTCACGGACCTTAGCCACCGCCGCCGCCA
TCGCCACCATGGACGAACAGGAGGCATTGAACTCAATCATGAACGATCTGGTGGCCCTCCAGATGAACCGACGTC
ACCGGATGCCCTGGATATGAGACCATGAAGAACAAGACACAGGTCACCTCAAATAGGCAGAGTGACGTCAGAATCA
AGTTCGAGCACAAACGGGGAGAGGCGAATTATAGCGTTCAGCCGGCCTGTGAAATATGAAGATGTGGAGCACAAGG
TGACAACAGTATTTGGACAACCTCTTGATCTACATTACATGAACAATGAGCTCTCCATCCTGCTGAAAAACCAAG
ATGATCTTGATAAAGCAATTGACATTTAGATAGAAGCTCAAGCATGAAAAGCCTTAGGATATTGCTGTTGTCCC
AGGACAGAAACCATAACAGTTCCTCTCCCCACTCTGAGGTGTCCAGACAGGTGCGGATCAAGGCTTCCCAGTCCG
CAGGGGATATAAATACTATCTACCAGCCCCCGAGCCCAAGAAGCAGGCACCTCTCTGTGAGCTCCAGAACCTTG
GCCGAAGCTCACCTCCCCCTGGCTATGTTCTGAGCGGCAGCAGCACATTGCCCGGCAGGGGTCTACACCAGCA
TCAACAGTGAGGGGGAGTTTCATCCAGAGACCAGCGAGCAGTGATGCTGGATCCCCTGAGCAGTGACAGAAATT
CCTTGCTGGAAGCTGCCAATCCTTGACAGGTGAGCAGACAGCCCATCCTTCCGGAATCACGAATGTCCCGTG
CCCAGAGCTTCCCCTGACAACAGACAGGAATACTCAGATCGGGAAACTCAGCTTTATGACAAAGGGGTCAAAGGTG
GAACCTACCCCCGGCGCTACCACGTGTCTGTGCACCACAAGGACTACAGTGATGGCAGAAGAACATTTCCCCGAA
TACGGCGTCATCAAGGCAACTTGTTTACCCTGGTGCCTCCAGCCGCTCCCTGAGCACAAATGGCGAGAATGG
GTCTGGCTGTGCAATACCTGGACCCCCGTGGGCGCCTGCGGAGTGCGGACAGCGAGAATGCCCTCTCTGTGCAGG
AGAGGAATGTGCCAACCAAGTCTCCAGTGCCCCCATCAACTGGCGCCGGGGAAAGCTCCTGGGCCAGGGTGCCT
TCGGCAGGGTCTATTTGTGCTATGACGTGGACACGGGACGTGAACCTTGCTTCCAAGCAGGTCCAATTTGATCCAG
ACAGTCTTGAGACAAGCAAGGAGGTGAGTGCTCTGGAGTGCGAGATCCAGTTGCTAAAGAACTTGACGATGAGC
GCATCGTGCACTACTATGGCTGTCTGCGGGACCGCGCTGAGAAGACCCTGACCATCTTCATGGAGTACATGCCAG
GGGGCTCGGTGAAAGACCAGTTGAAGGCTTACGGTGCTCTGACAGAGAGCGTGACCCGAAAGTACACGCGGCAGA
TCCTGGAGGGCATGTCTACCTGCACAGCAACATGATTGTTTACCAGGGACATTAAGGGAGCCAACATCCTCCGAG
ACTCTGCTGGGAATGTAAAGCTGGGGGACTTTGGGGCCAGCAAACGCCTGCAGACGATCTGTATGTGCGGGACGG
GCATGCGCTCCGCTCACTGGCACACCCTACTGGATGAGCCCTGAGGTGATCAGCGGCGAGGGGTATGGAAGGAAAG
CAGACGTGTGGAGCCTGGGCTGCACTGTGGTGGAGATGCTGACAGAGAAACCACCGTGGGCAGAGTATGAAGCTA
TGGCCGCCATCTTCAAGATTGCCACCCAGCCACCAATCCTCAGCTGCCCTCCCACATCTCTGAACATGGCCGGG
ACTTCTTGAGGCGCATTTTGTGGAGGCTCGCCAGAGACCTTACAGTGAGGAGCTGCTCACACACCACCTTTGCAC
AGCTCATGTACTAGAGCTCTCACGGCCACACAGCTGCCGGTCGCCCTTTGCTGCATGGCAGGGGGGTGCTGCTGGG
CTCAGTGAAGTTGCTGCTTCTCCAGGCAAGGCTGTGGACCATGGAGTGGCAGCCAGCCAGCGTCGGTCTGTGC
CCCTTCCGCCACTGGGGCTCAGA^gCCGGGGTGGGGTGGCTGCAGCCTCAGGACTGGGAGCCCCAGCCTGTGAGA
TCCAGGAGCTCCAGTGTCTGAGCTCAGCGTGGAGGGGTAGGGGCTGGGAACAGTGTGCAAGGCAGCCGTGGGCC
CCACCCTCGGGGATGTGTCTGACACTGCAATTGGCACCGAAGCCAGAGGGTCTGGGGGCACAAGACTGACGCC
AGGGTATGAAGAGTGTTATTTTCATTCAAAGTGTTATTTTGTTCCTTCCAATGTCTGGAGACCACCAGGGCA
TCTCTGGGCTGGATGAGCTCCACAAGCCTGAGGGAAGGCCAGCACTCGCTAGCAGTGCGAGGCAGAGGGCCAG
GCTGCCGTCCCCTAGAGTCCCAGGTTGGCTCTGCCAGTCTGCTTTACCAAAGATGAATGAAGCAAATGTGAT
GCTGCCTTATTTCAGGGAAGGAGGAGCCTGTCTGCTGTGGCCATGACCTGCCTCTCCCAGGCAGGGGCCCCGCG
ATGTGGAAGTGTGCTGCACTGAGGGGGGATCCAGTTTGTCAATGCAGTTGTCTGTGTTTACAAGTTGGAGTCAC
TCTTATGCTGTACCCAGTTTCTAAACTGGAGACTGTGTGTGCCCTCTGGGCTCTGAGTACCCCTGCTTTGGGCTT
GGGCTTAGGCTGCATTGAAAAGAGCTGAAGGTTGTGGCCTTTGCGCTCCTGGCCAGCCTTTGTTCCCCACTGGA
GCAGAAGGGGAGATGGACGACACGGTGGGGGCATCTGGCTGGCCAGTGCCCTGATCCCAGAGAGCCCCAGGAGG
TGTCTCAGGCTGCCTGAGTCGTGACCTGCTAGGCCAGAGCCCACTCCATCTGGTAGAAGGGAAAGCCCATATGCT
ACCACCAGCTGTGTCCAAAACCGCCAGCTCTGTTCTTCTCAGCCAGCCTCGCCCATCCCCCTTGAGGTCTCAGCC
CCTTTCCCTTGTAGCTCCTCCCCCTGGAGGGGGAAATGGCAGCAGGGGTTGGGGAACAGCATCTCCAAGCAGCTTA
GAGTTGGCCATATTTACCTCAGCCTGGGCGCTGGTCCTTCTTCCGGCCCCCTCCCCCTCCAAATGTGCCTATTGC
TAGAGCTCCTCCCTCTCAACACCCAGTTTCCTTGGGAGTTGTGATTAAAGGAAAAAAAAAAAAAAAAAAAA

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FIGURE 4934

MDEQEALNSIMNDLVALQMNRRHRMPGYETMKNKDTGHSNRQSDVRIKFEHNGERRIIAFSRPVKYEDVEHKVTT
VFGQPLDLHYMNNELSILLKNQDDLDKAIDILDRSSSMKSLRILLLSQDRNHNSSSPHSEVSRQVRIKASQSAGD
INTIYQPPEPRSRHLSVSSQNPGRSSPPPGYVPERQQHIARQGSYTSINSEGEFIPETSEQCMLDPLSSAENSL
GSCQSLDRSADSPSFRKSRMSRAQSFDPNRQEYSDRETQLYDKGVKGGTYPRRYHVSVHHKDYS DGRRTFPRI
HQQNLFTLVPSSRSLSTNGENMGLAVQYLDPRGRLRSADSENALSVQERNVPTKSPSAPINWRRGKLLGQGA
FYLCYDVTGRELASKQVQFDPDSPETSKEVSALECEIQLLKNLQHERIVQYYGCLDRDAEKTTLTIFMEYMPGGS
VKDQLKAYGALTESVTRKYTRQILEGMSYLHSMIVHRDIKGANILRDSAGNVKLGDFGASKRLQTICMSGTGMR
SVTGTPYWMSPEVISGEGYGRKADVWSLGCTVVEMLTEKPPWAEYEAMAAIFKIATQPTNPQLPSHISEHGRDFL
RRIFVEARQRPSAEELLTHHFAQLMY

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FIGURE 4935

AGAAGGAGGCCCAACCCTGAGCACAACAGCAACCTGGCCAATATCTTAGAGGTGTGTCGCAGCAAACATATGCC
CAAGTCAACGATTGAGACAGCACTGAAAATGGAGAAATCCAAGGACACTTATTTGCTGTATGAGGGTCGAGGCCC
TGGTGGCTCTTCTCTGCTCATCGAGGCATTATCTAACAGTAGCCACAAGTGCCAAGCAGACATTAGACATATCCT
GAATAAGAATGGAGGAGTGATGGCTGTAGGAGCTCGTCACTCTTTTGACAAAAAGGGGGTGATTGTGGTTGAAGT
GGAGGACAGAGAGAAGAAGGCTGTGAACCTAGAGCGTGCCCTGGAGATGGCAATCGAAGCAGGAGCTGAGGATGT
CAAGGAAACTGAAGATGAAGAAGAAAGGAACGTTTTTAAATTTATTTGTGATGCCTCTTCACTGCACCAAGTGAG
GAAGAAGCTGGACTCCCTGGGCCTGTGTTCTGTGTCCTGTGCACTAGAGTTCATCCCCAACTCAAAGGTGCAGCT
GGCTGAGCCCGACCTGGAACAGGCCGCACATCTCATTGAGGCTCTCAGCAACCACGAGGATGTGATTCACGTCTA
TGATAACATTGAATAACCAGGCTACATGTGCCCCGGGTTCTTCTAGAAATGTGGCAGCCCATTCCAGCACAC
AGGCTTCTGCAGCAATCTCTGAGGGTAAAGCCGGTGGGAGGCTCAGCAGGCCAGGAGGCCCAAGGACAGGACTTG
CGACCTTGAAGCCAAAGGAATCTCACTTGTGGGGCTCCTGTGTCAGCTCTGCTGCTGTCTCAGAGCCATCTGGAT
GAGTGTCCCGACACCCTCTCGGATGCAGGGCAGGACCACCCAGCTGGTCAGACTCTGATGTTGGGTAGCTGGCCT
CTGTGGGGATTGTAAGTGCCCTGAGGCGCTCTGTACTAGAACTGCTCTTAATAATAACGGTGATTATTGGTTGC
TGC

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FIGURE 4936A

CGGAGGAGGACGCGAGCCCCCTTGCGGGCGGTTCATCACAGCCCAGCCTCGGGGCTGCCACAGCGCTTGCGCCTGT
GCGCCCTCGGTCCCCGCGTCCACTGAGCGCCGCGCTCGGGGATGGGGCCCGGCCGCGCCCCCGCGCCCTGGC
CTCGTCACCTGCTGCGCTGCGTCTGCTCCTCGGGTGCTGCACCTCGGCCGTCCCGGCGCCCCCTGGGGACGCCG
CCCTCCCGGAACCAACGTCTTCTCATCTTCAGCCATGGACTGCAGGGCTGCCTGGAGGCCAGGGCGGGCAGG
TCAGAGTACCCCGGGCTTGCAATACCAGCCTCCCTGCCAGCGCTGGAAGTGGGTCTCCCGAAACCGGTATTCA
ACCTGGGTACCATGCAGTGCCTGGGCACAGGCTGGCCAGGCACCAACACCACGGCCTCCCTGGGCATGTATGAGT
GTGACCGGGAAGCACTGAATCTTCGCTGGCATTGTCGTACACTGGGTGACCAGCTGTCCTTGCTCCTGGGGGCC
GCACCAGCAACATATCCAAGCCTGGCACCCCTTGAGCGTGGTGACCAGACCCGAGTGGCCAGTGGCGCATCTACG
GCAGCGAGGAGGACCTATGTGCTCTGCCCTACCACGAGGTCTACACCATCCAGGGAACTCCCACGGAAAGCCGT
GCACCATCCCCCTCAAATATGACAACCAAGTGGTTCCACGGCTGCACCAGCACGGGCCGCGAGGATGGTCACCTGT
GGTGTGCCACCACCCAGGACTACGGCAAAGACGAGCGCTGGGGCTTCTGCCCCATCAAGAGTAACGACTGCGAGA
CCTTCTGGGACAAGGACCAGCTGACTGACAGCTGCTACCAGTTAACTTCCAGTCCACGCTGTCGTGGAGGGAGG
CCTGGGCCAGCTGCGAGCAGCAGGGTGCGGATCTGCTGAGCATCACGGAGATCCACGAGCAGACCTACATCAACG
GCCTCCTACTGGGTACAGCTCCACCCTGTGGATCGGCTTGAATGACTTGGACACGAGCGGAGGCTGGCAGTGGT
CGGACAACTCGCCCCCAAGTACCTCACTGGGAGAGTGACCAGCCGGACAACCCAGTGAGGAGAAGTGTGGAG
TGATCCGCACTGAGTCTCGGGCGGTGGCAGAACCGTGACTGCAGCATCGCGCTGCCCTATGTGTGCAAGAAGA
AGCCCAACGCCACGGCCGAGCCACCCCTCCAGACAGGTGGGCCAATGTGAAGGTGGAGTGCAGCCGAGCTGGC
AGCCCTTCCAGGGCCACTGCTACCGCTGCAGGCCGAGAAGCGCAGCTGGCAGGAGTCCAAGAAGGCATGTCTAC
GGGGCGGTGGCGACCTGGTCAGCATCCACAGCATGGCGGAGCTGGAATTCATCACCAGCAGATCAAGCAAGAGG
TGGAGGAGCTGTGGATCGGCCCTCAACGATTTGAACTGCAGATGAATTTTGAAGTGGTCTGACGGGAGCCTTGTGA
GCTTACCCACTGGCACCCCTTTGAGCCCAACAACCTCCGGGACAGTCTGGAGGACTGTGTACCATCTGGGGCC
CGGAAGGCCGCTGGAACGACAGTCCCTGTAACCAAGTCCCTTGCCATCCATCTGCAAGAAGGCAGGCCAGCTGAGCC
AGGGGGCCGCGGAGGAGGACCATGGCTGCCGGAAGGGTTGGACGTGGCACAGCCCATCTGCTACTGGCTGGGAG
AAGACCAAGTGACCTACAGTGAGGCCCGGCGCTGTGCACTGACCATGGCTCTCAGCTGGTCACCATCACCACA
GGTTGAGCAGGCCTTCGTGAGCAGCCTCATCTACAACCTGGGAGGGCGAGTACTTCTGGACGGCCCTGCAGGACC
TCAACAGCACCGGCTCCTTCTTCTGGCTCAGTGGGGATGAAGTCATGTACACCCACTGGAACCGGGACCAGCCCG
GGTACAGCCGTGGGGGCTGCGTGGCGCTGGCCACTGGCAGCGCCATGGGGCTGTGGGAGGTGAAGAAGTGTACCT
CGTTCCGGGCCCCGCTACATCTGCCGGCAGAGCCTGGGCACTCCAGTGACGCCGGAGCTGCCGGGGCCAGATCCCA
CGCCACGCTCACTGGCTCCTGTCCCCAGGGCTGGGCCTCGGACACCAAACTCCGGTATTGCTATAAGGTGTTCA
GCTCAGAGCGGCTGCAGGACAAGAAGAGCTGGGTCCAGGCCAGGGGGCCTGCCAGGAGCTGGGGGCCAGCTGC
TGAGCCTGGCCAGCTACGAGGAGGAGCACTTTGTGGCCAACATGCTCAACAAGATCTTCGGTGAATCAGAACCCG
AGATCCACGAGCAGCACTGGTTCTGGATCGGCCTGAACCGTCGGGATCCAGAGGGGGTCAAGTTGGCGCTGGA
GCGACGGCGTAGGGTTCTCTTACCACAATTTGACCGGAGCCGGCAGCAGCAGCAGCATCCGAGGCTGTGCGG
TGCTGGACCTGGCCTCCCTGCAGTGGGTGGCCATGCAGTGCGACACACAGCTGGACTGGATCTGCAAGATCCCCA
GAGGTACGGACGTGCGGGAGCCCCGACGACAGCCCTCAAGGCCGACGGGAATGGCTGCGCTTCCAGGAGGCCGAGT
ACAAGTTCTTTGAGCACCCTCCACGTGGGCGCAGGCGCAGCGCATCTGCAGTGGTTCCAGGCCGAGCTGACCT
CCGTGCACAGCCAGGCAGAGCTAGACTTCTTGAGCCACAACCTTGCAAGTGGACAGATGGTTCCATTATAAACTTCATCT
GGTGGATCGGCCTGCACACCTCTGAGAGCGATGGGCGCTTCAGATGGACAGATGGTTCCATTATAAACTTCATCT
CCTGGGCACCAGGCAAACCTCGGCCTGTGCGCAAGGACAAGAAGTGGTGTACATGACAGCCAGCCGAGAGGACT
GGGGGGACCAGAGGTGCCTGACAGCCTTGCCCTACATCTGCAAGCGCAGCAACGTCACCAAGAAACGCAGCCCC
CAGACCTGCCAACTACAGCCCTGGGGGGCTGCCCTTGTACTGGATCCAGTTCCTCAACAAGTGTTCAGGTFCC
AGGGCCAGGAACCCAGAGCCGGGTGAAGTGGTCAGAGGCACAGTTCTCCTGTGAACAGCAAGAGGCCAGCTGG
TCACCATCACAACCCCTTAGAGCAAGCAATTCATCACAGCCAGCCTGCCCAATGTGACCTTTGACCTTTGGATTG
GCCTCCATGCCTCGCAGAGGGACTTCCAGTGGGTGGAGCAGGAGCCTTTGATGTATGCCAACTGGGCACCTGGGG
AGCCCTCTGGCCCTAGCCCTGCTCCAGTGGCAACAAACCGACCAGCTGTGCGGTGGTCTGACAGCCCCCTCAG
CCCACTTCACTGGCCGCTGGGACGATCGGAGCTGCACGGAGGAGACCCATGGCTTCATCTGCCAGAAGGGCACGG
ACCCCTCCTGAGCCCGTCCCCAGCAGCGCTGCCCCCGCCCCGGGCACTGAGCTCTCCTACCTCAACGGCACCT
TCCGGCTGCTTCAGAAGCCGCTGCGCTGGCACGATGCCCTCCTGCTGTGTGAGAGCCACAATGCCAGCCTGGCCT

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FIGURE 4936B

ACGTGCCCCGACCCCTACACCCAGGCCTTCCTCACGCAGGCTGCCCCAGGGCTGCGCACGCCGCTCTGGATTGGGC
TGGCTGGCGAGGAGGGCTCTCGGCGGTACTCCTGGGTCTCAGAGGAGCCGCTGAACTACGTGGGCTGGCAGGACG
GGGAGCCGCAGCAGCCGGGGGGCTGTACCTACGTAGATGTGGACGGGGCCTGGCGCACCACCAGCTGTGACACCA
AGCTGCAGGGGGCTGTGTGTGGGGTTAGCAGTGGGCCCCCTCCTCCCCGAAGAATAAGCTACCATGGCAGCTGTC
CCCAGGGACTGGCAGACTCCGCGTGGATTCCCTTCCGGGAGCACTGCTATTCTTTCCACATGGAGCTGCTGCTGG
GCCACAAGGAGGCGCGACAGCGCTGCCAGAGAGCGGGTGGGGCCGCTCCTGTCTATCCTGGATGAGATGGAGAATG
TGTTTGTCTGGGAGCACCTGCAGAGCTATGAGGGCCAGAGTCGGGGCGCCTGGCTGGGCATGAACTTCAACCCCA
AAGGAGGCACTCTGGTCTGGCAGGACAACACAGCTGTGAACTACTCCAAGTGGGGGCCCCGGGCTTGGGCCCCA
GCATGCTGAGCCACAACAGCTGCTACTGGATTGAGAGCAACAGCGGGCTATGGCGCCCCGGCGCTTGACCAACA
TCACCATGGGTGTGCTCTGCAAGCTTCCTCGTGTGAGCAGAGCAGCTTCTCCCCATCAGCGCTTCCAGAGAACC
CAGCGGCCCTGGTGGTGGTGTGCTGATGGCGGTGCTGCTGCTCCTGGCCTTGCTGACCGCAGCCCTCATCTTTACC
GGAGGCGCCAGAGCATCGAGCGCGGGGCTTTGAGGGTGCCGCTACAGCCGCAGCAGCTCCAGCCCCACCGAGG
CCACTGAGAAGAATCCTGGTGTGAGACATGGAATGAATGAGCAACAAGAAATAGAGCCAGGCGCGTGGGCAGG
GCCAGGGCGGGAGGAGCTGGGGAGCTGGGGCCCTGGGTGAGTCTGGCCCCCACCAGCTGCCTGTCCAGTTGGCC
TATGGAAGGGTGCCCTTGGGAGTCGCTGTTGGGAGCCGAGCTGGGCAGAGCCTGGGCTGGTGGGGTGCCACCCT
CCCACAAGGGCTGGGCTGAGACCCAGCTGAGTGCAGCGTGGCGTTTCCCTTTCTGGGGGGGCTGAGGTCTTTGTC
ACCTGGTCCCTGTGCCCCACAGGAACCAGAGGTAGGATGGGAGGGGGAACGAGAGCCTCTTTCTCCCCAGAGCCC
CCGGCCAGGCCTGTTGATCCGCGCCCCAGGACCCCTTCTTTGAGAGCCCGAGGAGCCTCCCTGTCCCTCTCG
GGCAGATCTGTTGTGTCTCTCTTCCACCTGGCAGCCTCAGCTCTGTGCCCCCTACCCCTGCTCCCTCTCGCCCCCT
TCTCTCCACCCCTTCTTCTGAGCCGGGCGCTGGGGATTGGGGAGCCCTCTTGTTCCTGATGAGGGTCAGCTGA
GGGGGCTGAGCATCCATCACTCCTGTGCCTGCTGGGGTGGCTGTGGGGCGTGGCAGGAGGGGCCTAGGTGGGTTG
GGCCTGAGAACCAGGGCACGGGTGTGGTGTCTGCTGGGCTGGAGATAAGACTGGGGAGAGACACCCCAACCTCCC
AGGGTGGGAGCTGGGCCGGGCTGGGATGTCATCTCCTGCCGGGCGGGGAGGGCTCTGCCCTGGAAGAGTCCCC
TGTGGGGACCAAAATAAGTTCCCTAACATCTCCAGCTCCTGGCTCTGGTTTGGAGCAAGGGGAAGGGTTGCCAGA
GTCCTGGGGGCCCCAGAGGAGCAGGAGTCTGGGAGGGCCAGAGTTCACCCTCTAGTGGATCCAGGAGGAGCAGC
ACCCGAGCCCTGGAGTGGCCCAGTACCCTTCCAAGAGGCCACAGTCCCAGCCAGGACAAAGTATGCGGCCCATCC
TGGTGCGACAGCGTGGGACAATGTGAACATGGACTCGAAGACATGGCCCTTTCTCTGTAGTTGATTTTTTAAATG
TGCCATTATTGTTTTT

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FIGURE 4937

MGPGRPAPAPWPRHLLRCVLLLGCLHLGRPGAPGDAALPEPNVFLIFSHGLQGCLQAQGGQVRVTPACNTSLPAQ
RWKWSRNRLFNLTGMQCLGTGWPGTNTTASLGMIECDREALNLRWHCRTLGDLQSLLLGARTSNISKPGTLERG
DQTRSGQWRIYGSEEDLCALPYHEVYTIQGNSHGKPCITPFKYDNQWFHGCTSTGREDGHLWCATTQDYGKDERW
GFCPIKSNDCETFWDKDLTDSCYQFNFQSTLSWREAWASCEQQGADLLSITEIHEQTYINGLLTGYSSTLWIGL
NDLDTSGGWQWSDNSPLKYLNWESDQPDNPSEENCGVIRTESSGGWQNRDCSIALPYVCKKKPNATAEPTPPDRW
ANVKECEPSWQPFQGHICYRLQAEKRSWQESKACLRGGGDLVSIHSMAELEFITSQIKQEVEELWIGLNDLKLQ
MNFESDGSLSVSFTHWHPFEPNFRDSLED CVTIWGPEGRWNDSPCNQSLPSICKKAGQLSQGAAEDHGCRKGW
TWHSPSCYWLGEDQVTYSEARRLCTDHGSQLVITINRFEQAFVSSLIYNWEGEYFWTALQDLNSTGSFFWLSGDE
VMYTHWNRDQPGYSRGGCVALATGSAMGLWEVKNTSFRARYICRQSLGTPVTPELPGDPPTPSLTGSCPGQWAS
DTKLRYCYKVFSSERLQDKKSWVQAQACQELGAQLLSLASIEEHFVANMLNKIFGESEPEIHEQHFWIGLNR
RDPGGQSWRWSGVSFYSYHNFDRSRHDDDDIRGCAVLDLASLQWVAMQCDTQLDWICKIPRGTDVREPDDSPQG
RREWLRFQEA EYKFFEHHSTWAQAQRIC TWFQAE LTVSHSQAELDFLSHNLQKFSRAQEQHWWIGLHTSESDGRF
RWDGSIINFISWAPGKPRPVGDKDKCVYMTASREDWGDQRCLTALPYICKRSNVTKETQPPDLPTTALGGCPSD
WQFLNLCFQVQGEQPSRVKWEAQFSCEQQEAQLVTITNPLEQAFITASLPNVTFDLWIGLHASQRDFQWVEQ
EPLMYANWAPGEPSPGSPAPSGNKPTSCAVVLHSPSAHFTGRWDDRSCTEETHGFICQKGTDPSPSPALPPA
PGTELSYLNLTFRLLQKPLRWH DALLLCESHNASLAYVPDPTQAFLTQAARGLRTPWIGLAGEEGSRRYSWVS
EEPLNYVGWQDGEPPQPGGCTYVDVDGAWRTTSCDTKLQGA VCGVSSGPPPPRRISYHGSCPQGLADSAWIPFRE
HCYSFHMELLLGHKEARQRCQRAGGAVLSILDEMENVFVWEHLQSYEGQSRGAWLGMNFPKGGTLVWQDNTAVN
YSNWGPPGLGPSMLSHNSCYWISNSGLWRPGACTNITMGVVCKLPRAEQSSFSALPENPAALVVVLMVALLL
LALLTAALILYRRRQSIERGAFEGARYSRSSSSPTEATEKNILVSDMEMNEQQE

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FIGURE 4938

GGAGCCGCGCCGCATCTCAGGCGCAGTCTCTAGGGGCTGTGCGCATCCGTGGGGGGGACATGCGCATCTCAGGGG
GGCTGCTCGCATCTGGGGGTGCTGTGTGCATCTCGGGGGGGCTGTGCCCATCTAGCGGGGTGGCTGTGCGCATCT
GGAGGGGGCTGTGCGCAACCCGGGGGGGGTGTTCGCGCATCTAGCAGGGGCGGCTGTGCGCATTTGGGGGGGG
CTGTGCATATCTGGGGGGACCGTGCTTATCTCCGGGGGCGGCTGTGCGCATCTTGAGGGGTGTGTACATCTCGGG
GGGCTGTGCGCATCTTGGGGGGCTGTGTGCATCCGCGGGGGCTGTGCGCATCTCGGGGTGCTGTGCGCTGCTCC
TCTGAGCTCTGCTCTTTCTTGAGCGTTTGCCTCAGCATGGAGGGCGGGGCCGCGGCAGCCACCCCCACAGCACT
GCCTTACTACGTGGCCTTCTCCAGCTGCTGGGCCTGACCTTGGTGGCCATGACCGGCGCGTGGCTCGGGCTGTA
CCGAGGCGGCATTGCCTGGGAGAGCGACCTGCAGTTCAACGCGCACCCCTCTGCATGGTCATAGGCCTGATCTT
CCTGCAGGGAAATGCCCTGCTGGTTTACCGTGTCTTCAGGAACGAAGCTAAACGCACCACCAAGGTCCTGCACGG
GCTGCTGCACATCTTTGCGCTCGTCATCGCCCTGGTTGGCTTGGTGGCGGTGTTCGACTACCACAGGAAGAAGGG
CTACGCTGACCTGTACAGCCTACACAGCTGGTGCGGGATCCTTGTCTTTGTCTGTACTTTGTGCAGTGGCTGGT
GGGCTTCAGCTTCTTCTGTTCCCGGAGCTTCATTCTCCCTGCGGAGCCGCTACCGCCACAGCACATCTTCTT
TGGTGCTACCATCTTCTCTCTTTCCGTGGGACCGCCCTGCTGGGCCTGAAGGAGGCACTGCTGTTCAACCTCGG
GGGCAAGTATAGCGCATTTGAGCCCCGAGGGTGTCTGGCCAACGTGCTGGGCCTGCTGCTGGCCTGCTTCGGTGG
GGCGGTGCTCTACATCTTGACCCGGGCCGACTGGAAGCGGCCTTCCAGGCGGAAGAGCAGGCCCTCTCCATGGA
CTTCAAGACGCTGACGGAGGGAGATAGCCCCGGCTCCCACTGATGCGCCCGCCGGCCCTGGGGGTTCGCGGGGT
GTCTTCTTGCCCTGCCCTGCTGAGGCGTCTTCAGGACTGCAGGCTCCGGAGAGTGGCTCTGGCAGCAGGCGGGCG
CGTGGGTGCAGCTGCATCTGTTTGAGTGCTGCTTCTGGGGTGAGGTCTCCGCCTCCTCTGCTTCTCCTTTCTCC
GCTGCTATAGACCAGTTCATTGTGTGTGGCTCCCGTGTCTCTGTTGCCCCCTTCAGTGCAGAAGGCTTTGGGTAG
GACTTCGGGTGTTTCGGTCTGCTGCGAGAGCACAGATCTTTAAAGAAGCGAGAGAGGAGGCCCCACCCTCCTGGC
AGCAGATGCCTGGGGCAAGGCCAGGGGAAACTGGGGGGGCTCAGGGACAGGCCTGGAAAGGCCACGATGGCTGC
TGAATTCAAACAAGGAGTCCCTCCAGCCTGAATAACACGTGGCACAAATGGGCCCGGCCCTTTGGCAGAGGAGCAA
GTGATATGATGTGTAAAGTATGTTGGTGGTGAAAGCAAGGTTCCCCAGGAGAGGGGAGGGACTGGCCCTGGGAA
GCTCTGAGATGAGGCTGTGGCCAGCTGTAGTCCTGACCTTCTCTTTTAAACCCTTTAGCCCTAGGATGGCTT
TGGTGGGAGAGGGGATAGAAGCCCATGACTTCAGACAGACTTTCTCTTGGCAGATGCAGGCGGGCCTCCTCCAG
GCTGCTCCAGACATGGGGGTGGGGATGGGGGACCTTGCAGCCCTTCTGCTGGGGCTCCCTCCTTGTAGCA
CCCCCTTGCGGCTCAGCTCTGGTTTCTCTCCAGGCTCACCCAGGCTCTGCTCAGGCTGGGAGGCAGAGGGCA
CAAACCTTATAATTTTTTAAATGAAAAACCGCTGCTGCTGGCTGTGGCTAGAGCCCCCTGGGGCTGCTGGAGCTG
CTGCCTCTGTTCTGGAGGACGAGCCTTCTCCTTATCTGCTGCCCATCTTCCAGGAAGTCAGGATGGAGTCAGAA
CAACTACAGTCATCCCCGTGGTGTCTGCACATCACTCCAGCCCCATAAAGAGTGTATGTTAGCTGAGTCACCA
TTTGGCTTCGGCCTGGAAATAGTGTGATTAGAACACTGATCGTGTGCGAGGCCAGGAGATCAAGACCATCCTGAC
TAACAAACACAGTGAAACCCCGTCTCTACTAAAAATACAAAAAATTAGCCAGGCGTGGTGGTGGGCGCCTGTAG
TCCCAGCTACTTGGGAG

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FIGURE 4939

AGTATGTGTGGTTGGGGAATTCATGTGGAGGTCAGAGTGAAGCAGGTGTGAGAGGGTCCAGCAGAAGGAAACAT
GGCTGCCAAAGTGTTTTGAGTCCATTGGCAAGTTTGGCCTGGCCTTAGCTGTTGCAGGAGGCGTGGTGAACCTCTGC
CTTATATAATGTGGATGCTGGGCACAGAGCTGTCATCTTTGACCGATTCCGTGGAGTGCAGGACATTGTGGTAGG
GGAAGGGACTCATTTTTCTCATCCCGTGGGTACAGAAACCAATTATCTTTGACTGCCGTCTCGACCACGTAATGT
GCCAGTCATCACTGGTAGCAAAGATTTACAGAAATGTCAACATCACACTGCGCATCCTCTTCGGCCTGTCGCCAG
CCAGCTTCCTCGCATCTTCACCAGCATCGGAGAGGACTATGATGAGCGTGTGCTGCCGTCCATCACAACCTGAGAT
CCTCAAGTCAGTGGTGGCTCGCTTTGATGCTGGAGAACTAATACCCAGAGAGAGCTGGTCTCCAGGCAGGTGAG
CGACGACCTTACAGAGCGAGCCGCCACCTTTGGGCTCATCTGGATGACGTGTCTTGACACATCTGACCTTCGG
GAAGGAGTTCACAGAAGCGGTGGAAGCCAAACAGGTGGCTCAGCAGGAAGCAGAGAGGGCCAGATTTGTGGTGGGA
AAAGGCTGAGCAACAGAAAAAGGCGGCCATCATCTCTGCTGAGGGCGACTCCAAGGCAGCTGAGCTGATTGCCAA
CTCACTGGCCACTGCAGGGGATGGCCTGATCGAGCTGCGCAAGCTGGAAGCTGCAGAGGACATCGCGTACCAGCT
CTCACGCTCTCGGAACATCACCTACCTGCCAGCGGGGAGTCCGTGCTCCTCCAGCTGCCCCAGTGAAGGGCCAC
CCTGCCTGCACCTCCGCGGGCTGACTGGGCCACAGCCCCGATGATTCTTAACACAGCCTTCCTTCTGCTCCACC
CCAGAAATCACTGTGAAATTTTCATGATTGGCTTAAAGTGAAGGAAATAAAGGTAAATCACTTCAGATCTCTAAT
TAGTCTATCAAATGAACTCTTTCATTCTTCTCACATCCATCTACTTTTTTATCCACCTCCCTACCAAAAATTGC
CAAGTGCCTATGCAAACCAGCTTTAGGTCCCAATTCGGGGCCTGCTGGAGTTCCGGCCTGGGCACCAGCATTG
CAGCACGCAGGCGGGGCAGTATGTGATGGACTGGGGAGCACAGGTGTCTGCCTAGATCCACGTGTGGCCTCCGTC
CTGTCACTGATGGAAGGTTTGGCGATGAGGGCATGTGCGGCTGAACTGAGAAGGCAGGCCTCCGTCTTCCCAGCG
GTTCTGTGCAGATGCTGCTGAAGAGAGGTGCCGGGAGGGGCAGAGAGGAAGTGGTCTGTCTGTTACCATAAGT
CTGATTCTCTTTAACTGTGTGACCAGCGGAAACAGGTGTGTGTGAACTGGGCACAGATTGAAGAATCTGCCCTG
TTGAGGTGGGTGGGCCTGACTGTTGCCCCCAGGGTCTAAACTTGGATGGACTTGTATAGTGAGAGAGGAGGC
CTGGACCGAGATGTGAGTCTGTTGAAGACTTCCTCTCTACCCCCACCTTGGTCCCTCTCAGATACCCAGTGGA
ATTCCAACCTGAAGGATTGCATCCTGCTGGGGCTGAACATGCCTGCCAAAGACGTGTCCGACCTACGTTCTGGC
CCCCTCGTTTCAGAGACTGCCCTTCTCACGGGCTCTATGCCTGCACTGGGAAGGAAACAAATGTGTATAAACTGCT
GTCAATAAATGACACCCAGACCTTCC

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FIGURE 4940

MAAKVFESIGKFGALAVAGGVVNSALYNVDAGHRAVIFDRFRGVQDIVVGEGTHFLIPWVQKPIIFDCRSRPRN
VPVITGSKDLQNVNITLRILFRPVASQLPRIFTSIGEDYDERVLPSITTEILKSVVARFDAGELITQRELVSRQV
SDDLTERAATFGLILDDVSLTHLTFGKEFTEAVEAKQVAQQEAERARFVVEKAEQQKAAIISAEGDSKAAELIA
NSLATAGDGLIELRKLEAAEDIAYQLSRSRNITYLPAGQSVLLQLPQ

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FIGURE 4941

AGATCGATCTAAGATGGCGACCGTCGAACCGGAAACCACCCCTACTCCTAATCCCCGACTACAGAAAAGGAGAA
AACGGAATCTAATCAGGAGGTTGCTAACCCAGAACACTATATTAAACATCCCCTACAGAACAGATGGGCACTCTG
GTTTTTTAAAAATGATAAAAGCAAACTTGGCAAGCAAACCTTGTGGCTGATCTCCAAGTTTGATACTGTTGAAGA
CTTTTGGGCTCTGTACAACCATATCCAGTTGTCTAGTAATTTAATGCCTGGCTGTGACTACTCACTTTTAAAGGA
TGGTATTGAGCCTATGTGGGAAGATGAGAAAAACAAACGGGGAGGACGATGGCTAATTACATTGAACAAACAGCA
GAGACGAAGTGACCTCGATCGCTTTTGGCTAGAGACACTTCTGTGCCTTATTGGAGAATCTTTTGATGACTACAG
TGATGATGTATGTGGCGCTGTTGTTAATGTTAGAGCTAAAGGTGATAAGATAGCAATATGGACTACTGAATGTGA
AAACAGAGAAGCTGTTACACATATAGGGAGGGTATACAAGGAAAGGTTAGGACTTCCTCCAAAGATAGTGATTGG
TTATCAGTCCCACGCAGACACAGCTACTAAGAGCGGCTCCACCCTAAAAATAGGTTTGTGTTTAAAGAAGACAC
CTTCTGAGTATTCTCATAGGAGACTGCGTCAAGCAATCGAGATTTGGGAGCTGAACCAAAGCCTCTTCAAAAAGC
AGAGTGGACTGCATTTAAATTTGATTTCCATCTAAATGTTACTCAGATATAAGAGAAGTCTCATTTCGCCCTTTGTC
TTGTACTTCTGTGTTCTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTGGCTAGAGTTTACACTATCCCAATCAAAGAA
TTACAGTACACATCTCCAGAATCCATAAATGTGTTCTGGCCCACTCTGTAATAGTTCAGTAGAATTACCATTAA
TTACATACAGATTTTACCTATCCACAATAGTCAGAAAAACAACCTTGGCATTCTTATACTTTACAGGAAAAAAAT
CTGTTGTTCCATTTTATGCAGAAGCATATTTGCTGGTTTGAAAGATTATGATGCATACAGTTTCTAGCAATTT
TCTTTGTTTCTTTTACAGCATTGCTTTTGTCTGACTCTTGTCTGATGGCTGCTAGATTTTAAATTTATTGTTTCC
CTACTTGATAATATTAGTGATTCTGATTTTCAATTTGTTTTGCTTTTGTGTTTTTCTCATGTAACATT
GGTGAAGGATCCAGGAATATGACACAAAGGTGGAATAAACATTAAATTTTGTGCATTCTTTGGTAATTTTTTTTGT
TTTTTGTAACCTACAAAGCTTTGCTACAAATTTATGCATTTTATTCAAATCAGTGATCTATGTTTGTGTGATTTC
TAAACATAATTGTGGATTATAAAAAATGTAACATCATAATTACATTCCTAACTAGAATTAGTATGTCTGTTTTG
TATCTTTATGCTGTATTTTAACTTTGTATTACTTAGGTTATTTTGTGTTTGGTTAAAAATGGCTCAAGTAGAAA
AGCAGTCCCATTTCATATTAAACAGTGTACAAAACCTGTAATAAAATGTGTACAGTGAATTGTCTTT

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FIGURE 4942

AGATCGATCTAAGATGGCGACCGTCGAACAGATGGGCACCTCTGGTTTTTTAAAAATGATAAAAGCAAACTTGGC
AAGCAAACCTTGTGGCTGATCTCCAAGTTTGATACTGTTGAAGACTTTTGGGCTCTGTACAACCATATCCAGTTGT
CTAGTAATTTAATGCCTGGCTGTGACTACTCACTTTTTAAGGATGGTATTGAGCCTATGTGGGAAGATGAGAAAA
ACAAACGGGGAGGACGATGGCTAATTACATTGAACAAACAGCAGAGACGAAGTGACCTCGATCGCTTTTGGCTAG
AGACACTTCTGTGCCTTATTGGAGAATCTTTTGATGACTACAGTGATGATGTATGTGGCGCTGTTGTTAATGTTA
GAGCTAAAGGTGATAAGATAGCAATATGGACTACTGAATGTGAAAACAGAGAAGCTGTTACACATATAGGGAGGG
TATACAAGGAAAGGTTAGGACTTCCTCAAAGATAGTGATTGGTTATCAGTCCCACGCAGACACAGCTACTAAGA
GCGGCTCCACCCTAAAAATAGGTTTGTGTTTAAGAAGACACCTTCTGAGTATTCTCATAGGAGACTGCGTCAA
GCAATCGAGATTTGGGAGCTGAACCAAAGCCTCTTCAAAAAGCAGAGTGGACTGCATTTAAATTTGATTTCATC
TAAATGTTACTCAGATATAAGAGAAG

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FIGURE 4943A

GCCGAGCACCGCGCACCGCGTCATGGGGGCGCGCTCGGGGCCCGGGGGCGGGGGCTGCTGCTGCCGCTGCCGCT
GCTGTTGCTGCTXGCCGCCGAGCCCGCCCTGGCGTTGXGXACCCCGGGCTGCAGCCXGAAACTTTTCTXGCTG
ACGAGGCCGGGGCGCAGCTCTTCGCGCAGAGCTACAACTCCAGCGCCGAACAGGTGCTGTTCCXAGAGCGTGGCC
GCCAGCTGGGGCGCACGACACCAACATCACC GCGGAGAATGXXXXXXXGAGGAAGCAGCCCTGCTCAGCCAG
GAGTTXGCGXGGAGGCCTXGGGGCAGXAAGGCCAAXGGAGCTGTATGAACCGATCTGGCAGAACTTCACGGXACC
XCGCAXGCTGCGCAGGATCATCGGAGCTGTGCGCACCTGGGCTCTGCCAACXCTGCCCCCTGGCTAAGCGGCAGC
AGTACAACGCCCTGCTAAGCAACATGAGCAGGATCTACTCCACCGCCAAGGTCTGCCTCCCCAACAGACTGCCA
CCTGCTGGTCCCTGGACCCAGATCTCACCAACATCCTGGCTTCCTCGCGAACTACGXCCATGCTCCTGTTTGCT
GGGAGGGCTGGCACAATGCTGCGGGCATCCCGCTGAAACCGCTGTACGAGGATTTCACTGCCCTCAGCAATGAAG
CCTACAAGCAGGACGGCTTCACAGACACGGGGGCTACTGGCGCTCCTGGTACAACCTCCCCACCTTCGAGGACG
ATCTGGAACACCTCTACCAACAGCTAGAGCCCCCTTACCTGAACCTCCATGCCCTTCGTCGCCCGCGCACTGCATC
GCCGATACGGAGACAGATACATCAACCTCAGGGGACCCATCCCTGCTCATCTGCTGGGAGACATGTGGGCCCCAGA
GCTGGGAAAACATCTACGACATGGTGGTGCCTTTCCAGACAAGCCCAACCTCGATGTCACCAGTACTATGCTGC
AGCAGGGCTGGAACGCCACGCACATGTTCCGGGTGGCAGAGGAGTTCTTCACCTCCCTGGAGCTCTCCCCATGC
CTCCCGAGTTCTGGGAAGGGTCGATGCTGGAGAAGCCGGCCGACGGGCGGGAAGTGGTGTGCCACGCCTCGGCTT
GGGACTTCTACAACAGGAAAGACTTCAGGATCAAGCAGTGCACACGGGTACGATGGACCAGCTCTCCACAGTGC
ACCATGAGATGGGCCATATACAGTACTACCTGCAGTACAAGGATCTGCCCCGCTCCCTGCGTCGGGGGGCCAAACC
CCGGCTTCCATGAGGCCATTGGGGACGTGCTGGCGCTCTCGGTCTCCACTCCTGAACATCTGCACAAAATCGGCC
TGCTGGACCGTGTACCAATGACACGGAAAGTGACATCAATTACTTGCTAAAAATGGCACTGGAAAAAATTGCCT
TCCTGCCCTTTGGCTACTTGGTGGACCAAGTGGCGCTGGGGGGTCTTTAGTGGGCGTACCCCCCTTTCCGCTACA
ACTTCGACTGGTGGTATCTTCGAACCAAGTATCAGGGGATCTGTCTCTCTGTTACCCGAAACGAAACCCACTTTG
ATGCTGGAGCTAAGTTTTCATGTTCCAAATGTGACACCATACATCAGGTACTTTGTGAGTTTTGTCTGCAGTTCC
AGTTCCATGAAGCCCTGTGCAAGGAGGCGAGGCTATGAGGGCCCCACTGCACCAAGTGTGACATCTACCGGTCCACCA
AGGCAGGGGCCAAGCTCCGGAAGGTGCTGCAGGCTGGCTCCTCCAGGCCCTGGCAGGAGGTGCTGAAGGACATGG
TCGGCTTAGATGCCCTGGATGCCAGCCGCTGCTCAAGTACTTCCAGCCAGTCAACCAAGTGGCTGCAGGAGCAGA
ACCAGCAGAACGGCGAGGTCTGGGCTGGCCGAGTACCAGTGGCACCCGCCGTTGCCTGACAACTACCCGGAGG
GCATAGACCTGGTGAATGATGAGGCTGAGGCCAGCAAGTTTGTGGAGGAATATGACCGGACATCCAGGTGGTGT
GGAACGAGTATGCCGAGGCCAACTGGAAC TACAACCAACATCACCACAGAGACCAGCAAGATTCTGCTGCAGA
AGAACATGCAAAATAGCCAACCAACCCCTGAAGTACGGCACCCAGGCCAGGAAGTTTGATGTGAACCAAGTTGCAGA
ACACCACTATCAAGCGGATCATAAAGAGGTTTACAGACCTAGAACGGGCAGCACTGCCTGCCAGGAGCTGGAGG
AGTACAACAAGATCCTGTTGGATATGGAACCACTACAGCGTGGCCACTGTGTGCCACCCGAATGGCAGCTGCC
TGCACTCGAGCCAGATCTGACGAATGTGATGGCCACGTCCCGGAAATATGAAGACCTGTTATGGGCATGGGAGG
GCTGGCGAGACAAGGCGGGGAGAGCCATCCTCCAGTTTACCCGAAATACGTGGAAC TACAACCAAGCTGCC
GGCTCAATGGCTATGTAGATGCAGGGGACTCGTGGAGGTCTATGTACGAGACACCATCCCTGGAGCAAGACCTGG
AGCGGCTCTTCCAGGAGCTGCAGCCACTCTACCTCAACCTGCATGCCCTACGTGCGCGGGCCCTGCACCGTCACT
ACGGGGCCCCAGCACATCAACCTGGAGGGGGCCATTCTGCTCACTGCTGGGGAACATGTGGGCGCAGACCTGGT
CCAACATCTATGACTTGGTGGTGCCCTTCCCTTCAGCCCCCTCGATGGACACCACAGAGGCTATGCTAAAGCAGG
GCTGGACGCXCCAGGAGGATGTTTAAGGAGGCTGATGATTTCTTACCTXCCCTGGGGCTGCTGCCCGTGCCTCC
TGAGTTCTGGAACAAGTCGATGCTGGAGAAGCCAACCGACGGGCGGGAGGTGGTCTGCCACGCCTCGGCCTGGGA
CTTCTACAACCGCAAGGACTTCCGGATCAAGCAGTGCACCACCGTGAACCTGGAGGACCTGGTAGTGGCCACCA
CGAAATGGGCCACATCCAGTATTTTCATGCAGTACAAAGACTTACCTGTGGCCTTGAGGGAGGGTGCCAACCCCGG
CTTCCATGAGGCCATTGGGGACGTGCTAGCCCTCTCAGTGTCTACGCCCAAGCACCTGCACAGTCTCAACCTGCT
GAGCAGTGAGGGTGGCAGCGACGAGCATGACATCAACTTTCTGATGAAGATGGCCCTTGACAAGATCGCCTTTAT
CCCCTTCACTACCTCGTCGATCAGTGGCGCTGGAGGGTATTTGATGGAAGCATCACCAGGAGAATAAACC
GGAGTGGTGGAGCCTCAGGCTGAAGTACCAGGGCTCTGCCCCCAGTGCCAGGACTCAAGGTGACTTTGACCC
AGGGGCCAAGTTCCACATTCTTCTAGCGTGCCTTACATCAGGTACTTTGTGAGCTTCATCATCCAGTTCCAGTT
CCACGAGGCACTGTGCCAGGCACTGGCCACACGGGCCCCCTGCACAAGTGTGACATCTACCAGTCCAAGGAGGC
CGGGCAGCGCTGGCGACCGCCATGAAGCTGGGCTTCAGXTAGGCCGTGGCCGAXAGCCATGCAGCTGATCACG

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FIGURE 4943B

XXGGCCAGCCCXAACATGAGCGCCTCGGCCATGTTGAGCTACTTCAAGCCGCTGCTGGAXCTGGCTCCGCACGGA
GAACGAGCTGCATGGGGAGAAGCTGGGCTGGCCGCAGTACAACTGGACGXCCGA ACTCCGCTCGCTCAGAAGGGC
CCCTCCCAGACAGCGGCCGCGTCAGCTTXCCTGGGCCTGGACCTGGATGCGCAGGAGGCCC GCGTGGGCXCAGXT
GGCTGCTGCTCTTCCTGGGCATCGCCCTGXCTGGTAGCCACCCTGGGCCTCAGCCAGCGGCTXCTT XCAGCATCC
GCCACCGCAGCCTCCACCGGC ACTCCACGGGCCCCAGTTCGGCTCCGAGGTGGAGCTGAGACACTCCTGAGGTG
ACCCGGCTGGGTGCGCCCTGCCCAAGGGCCTCCCACCAGAGACTGGGATGGGAACACTGGTGGGCAGCTGAGG

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FIGURE 4944

TGACCCAGGACTCTTTGTTTATTGCTGTGATTTTTCTTCCACAGCTATAGAACTGGTCCAGACAAATTCAGAATA
TGATCCTTCTCGGTGTTTTGCCCTTTGTTTCACGACCTGTGTGATGAAGAGAAGAGTTACCCAGTGCCCAAGGGCAG
TCTTGATATTATCATTCTCATATTTGTTCTTTTCAGCAATTGTTCCAGACAAGATGCAGAAGGCTATCAACAGGCT
GAGCAGGCTTCTGAAACCTGGCGGGATGATGCTTCTGCGAGATTACGGCCGCTATGACATGGCTCAGCTTCGGTT
TAAAAAAGGTCAGTGTCTATCTGGAAATTTCTACGTGAGAGGTGATGGAACCAGAGTTTACTTCTTCACACAAGA
GGAACCTGGACACGCTTTTACCACCTGCTGGACTGGAAAAAGTTTCAGAACCTGGTGGATCGCCGACTGCAGGTGAA
CCGAGGAAAGCAACTGACAATGTACCGGGTTTGGATTGAGTGCAAATACTGCAAGCCCCCTTCTGTCCAGCACCAG
CTGAGAGGCACCTGCTGCCAACACGATGCAAGCCCATTGTGTTTTCCGGGCTTTTTTAAAAAAAATTGTAGCAC
TGGGCGTGGTGCAATGCCTGTAATCCCAGCCACTCAGGAGGCTGAGGCGGGGAGGATCCATTGAGCCCAGCAGTCC
AACCTGGGCAAAATAGTGAGAGACCCCTGTATCTGAAAGTAATAATAAAAAATAAAAAATATAAATGAGGTCTCGTT
GATGTTGGACAATTCAAGAATTCAGACTTGAACCTTAAACCTAGGAAAAGTTACTTTGTATCAGGATTCTAACAA
TTATGCTTCATATTTGTGAAGTCCTTTAAAAACATAATTTTCTCAAGTTCTTTCTTTGAGATCTCAATCTGTCTTA
GCATTTTGTAACTAATAACTGAAATTTTATTCAAAGGAATTGTAAACCTTAAACCACCAATTTATTTCCATGTGA
AAAAGTGTACATATGACAAGTGTTTTTTGACTGTAATTGCGTTAAATCTTTTGAGAATGTAAATGCCGGGCTAG
GCAATTGCAGTTAATACATACAGAGGTTAGTGAAGGGCTTATTAAGTTGTAGGGGAAGCAAGCTGGGAAGAATCA
GATCAGATATTTTCCTGAC

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FIGURE 4945

AGGTTTCAGCTTGTTGGTTTAGATGAGGAGAGTTTCAGAGTTTATTTGCAGAAACACCTTTGACCACCCATACCCCA
CCACAAAGCTCATGTGGATCCCTGACACAAAAGGCGTCTATCCAGACCTACTGGCAACAAGCGGTGACTATCTCC
GTGTGTGGAGGGTTGGTGAACAGAGACCAGGCTGGAGTGTTTGCTAAACAATAAAGAACTCTGATTTCTGTG
CTCCCCTGACCTCCTTTGACTGGAATGAGGTGGATCCTTATCTTTTAGGTACCTCAAGCATTGATACGACATGCA
CCATCTGGGGGCTGGAGACAGGGCAGGTGTTAGGGCGAGTGAATCTCGTGTCTGGCCACGTGAAGACCCAGCTGA
TCGCCCATGACAAAGAGGTCTATGATATTGCATTTAGCCGGGCGGGGGTGGCAGGGACATGTTTGCCTCTGTGG
GTGCTGATGGCTCGGTGCGGATGTTTGACCTCCGCCATCTAGAACACAGCACCATCATTACGAAGACCCACAGC
ATCACCCACTGCTTCGCCTCTGCTGGAACAAGCAGGACCCTAACTACCTGGCCACCATGGCCATGGATGGAATGG
AGGTGGTGATTCTAGATGTCCGGGTTCCCTGCACACCTGTCGCCAGGTAAACAACCATCGAGCATGTGTCAATG
GCATTGCTTGGGCCCCACATTATCCTGCCACATCTGCACTGCAGCGGATGACCACCAGGCTCTCATCTGGGACA
TCCAGCAAATGCCCCGAGCCATTGAGGACCCTATCCTGGCCTACACAGCTGAAGGAGAGATCAACAATGTGCAGT
GGGCATCAACTCAGCCCGACTGGATCGCCATCTGCTACAACAACCTGCCTGGAGATACTCAGAGTGTAGTGTGGT
GGCGCTGTGCCCACGAGGCAGGGGCTTTTGTATTTCTGCTCTGCCCCACCCCCAAAGTAAGAAGAAACATGTT
TCCAGTGGCCAGTATGTCTTTTATTGCTTTGCACCCACTGTTACCAGAAGCTGCTCTAGGAGTTCCTGGCCAGTC
ACCCCATCGCCCTCTGTGGCAGACTCAGTGCTGTGTGGCGCTCCTCAGCCCAGGGCTGAGTTTTAAGATTTTCT
CTCCTTTCTCTTCTCCTTTGGTTCCTCAATTAA

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FIGURE 4946

ATGAGTGGCTCCTTCGATCGCAAGCTCAGCAGCATCCTCACCGACATCTCCAGCTCCCTTAGCTGCCATGCGGGC
TCCAAGGACTCGCTACCC TGCCGAGTCTTCTGTCACTGACCTGGGCTACTACAGCGCTCCCCAGCACGATTAC
TACTCGGGCCAGCCCTATGGCCAGACGGTGAACCCCTACACCTACCACCACCAATTCAATCTCAATGGGCTTGCA
GGCACGGGCGCTTACTCGCCCAAGTCGGAATATACCTACGGAGCCTCCTACCGGCAATACGGGGCGTATCGGGAG
CAGCCGCTGCCAGCCCAGGACCCAGTGTGCGTGAAGGAGGAGCCGGAAGCAGAGGTGCGCATGGTGAATGGGAAG
CCCAAGAAGGTCCGAAAGCCGCGTACAATCTACTCCAGCTACCAGCTGGCCGCCCTGCAGCGCCGCTTCCAGAAG
GCCCAGTACCTGGCGCTGCCCCGAGCGCGCCGAGCTGGCCGCGCAGCTGGGCCTCACGCAGACACAGGTGAAAATC
TGTTCCAGAACCGCGTTCCAAGTTCAAGAACTCTACAAGAACGGGGAGGTGCCGCTGGAGCACAGTCCCAAT
AACAGTGATTCCATGGCCTGCAACTCACCACCATCACCCGCCCTCTGGGACACCTCTTCCCACTCCACTCCGGCC
CCTGCCCCGAGTCAGCTGCCCCCGCGCTCCCATACAGTGCCTCCCCCAGCTACCTGGACGACCCACCAACTCC
TGGTATCACGCACAGAACCTGAGTGGACCCCACTTACAGCAGCAGCCGCCTCAGCCAGCCACCCTGCACCATGCC
TCTCCCGGGCCCCCGCCCAACCC TGGGGCTGTGTACTTGA

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FIGURE 4947

MSGSFDRKLSSILTDISSLSCHAGSKDSPTLPESSTDLGYYSAPQHDYYSGQPYGQTVNPTYHHQFNGLA
GTGAYSPKSEYTYGASYRQYGAYREQPLPAQDPVSVKEEPEAEVRMVNGKPKKVRKPRTIYSSYQLAALQRRFQK
AQYLALPERAELAAQLGLTQTQVKIWFQNRRSKFKKLYKNGEVPLEHSPNNSDSMACNSPPSPALWDTSSHSTPA
PARSQLPPPLPYASPSYLDPTNSWYHAQNLSGPHLQQQPPQPATLHHASPGPPPNPGAVY

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FIGURE 4948

CCCGTCACCAAGCTGGGCGCTTGGTCAAGGAAATGAAGATCAAATCCCTGGAGGAGATCTATCCCTTCTCCCTG
CCCATTAAAGGTATCTGAGATCATTGACTTTTTCTGGGGGCCTCTCTTAAGGACGAGGTTTTGAAGATTATGTCG
GTGCAGAAGCAGACCCGCTGCGGCTCTGTGCTGGTGCGCCTCATCCCTGCACCCAGGGGCACTGGCATTGTCTCC
GCACCTGTGCCCAGAAGCTGCTCATGATAGCTGGTATCGATGACTGCTACACCTCAGCCCCGGGGCTGCACTGCC
ACCCTGGGCAACTTCGCCAAGGCCACCTTTGACGCCATCTCTAAGACCTACAGCTACCTGACCCCCGACCTCTGG
AAGGAGACTGTATTTACCAAGTCTCCCTGTCAGGAATTCAGTACCACCTCGTCAAGACCCACACCAGAGTCTTC
GTGCAGCAGACCCAGGCTCCAGCTGTGGCTACAACATAGGGTTTTTATACAAGAAAAATAAAGTGAATTAAGC

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FIGURE 4949

MKIKSLEEIYPFSLPIKVSEIIDFFLGASLKDEVLKIMSVQKQTRCGSVLVRLIPAPRGTGIVSAPVPPKLLMIA
GIDDCYTSARGCTATLGNFAKATFDAISKTYSYLTPDLWKETVFTKSPCQEFTDHLVKTHTRVQQTQAPAVAT
T

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FIGURE 4950

AGACCCTTTTCACAAGATGGCGCCGAAAGCGAAGAAGGAAGCTCCTGCCCCCTCCTAAAGCCGAAGCCAAAGCGAA
GGCTTTAAAGGCCAAGAAGGCAGTGTTGAAAGGTGTCCACAGCCACAAAAAGAAGAAGATCCGCACGTCACCCAC
CTTCCGGCAGCCGAAGACACTGCGACTCTGGAGACAGCCCCAAATATCCTCGGAAGAGCGCTCCCAGGAGAAACAA
GCTTGACCACTATGCTATCATCAAGTTTCCGCTGACCACTGAGTCTGCCATGAAGAAGACAGAAGACAACAACAC
ACTTGTGTTTCCTTGTGGATGTTAAAGCCAACAAGCACCAGATTAAACAGGCTGTGAAGAAGCTCTATGACATTGA
TGTGGCCAAGGTCAACACCCTGATTTGGCCTGATGGAGAGAAGAAGGCATATGTTGACTGGCTCCTGGTTACGA
TGCTTTGGATGTTGCCAACAAAATTGGGATCATCTAAACTGAGTCCAGCTGCCTAATTCTGAATATATATATATA
TATATATATATATATATATATCTTTTCACCAT

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FIGURE 4951

GCAACCGCAGCCAGCCCCAGTCCGGGAGGAAGTTCTGCCGGGCGCTCTCCGCCGGTGCCCTCACTGGTTATAGTG
CTATACAGGAAACCTGGCAGCGCCGGAGCCGCGCGGTTCGAGGAGGGAGCGCGGGACGCCGAGCCACGCGCGCCT
GCCGGGACAAGTGGAGACGAGGCCGGCGAGCGGACGCCCCGAGGTTTGGCGAAGGAGCTGTGGCCGGGTCCCTT
CTTATCCAGCCCCGAGACACTGCGCTCCGGTGGGCGTCCCTGCGCTGGGAATCCCTCTCGGAGTTTTTCCAGGCC
GGCCGGGTGTCTCCGGGAAGGCCCTGTTGGGGGAGGTGGGCCCGGAGCTGGCAGGTCTACAATCCGGTTGGAAG
GGCTCGCAGTGGGTGATTGAGGTGCCAATGACCTCCCCGCGAACGGGAACGCCCGCACTAGACAACCGGCCCA
GACCGGCATTCCCAGAGCCGAGGCCGGGAGGACGAGGACTCCGGGACAGCAAATCCCCGGGGGAGAAGGGAA
GGGGGAAGGCGGGACAGGGGAGGCCACCTCCTTGGGCTCCGCTAGCGACCCAGCCAGCGCCCCCTTCAGACGCAG
CCTTCTGGCTCCGGACCCCGGCTTTCTGCTCCGGTCTCGTCCCAATGCCCCCAAGGTCCCCAGCAGAGGCAT
TCAGGTTCTCTCTCGCCCCGCCAGACGCAGCTTCTTTGGGTATGGGTGACAGCACTCTTGAGCGTCTGCTGTCCC
TATTCGCTGCCGTTGCCAGCTCCGATTCCGCGAAACCTCTCCGGCACCACCTCGGAAGCCCCGCCAGGGCGATG
GTCCGGGCTTAACCTGCCGGCCCCGCCACCCGGCCCTTGGGCTCCCTGAGGCCCCGCCAGCAGACACCGGAGAG
CAATGGTGTGATCTCCGCACACTGCAACCTCTGCTCCAGGGTTCAAGTGGTTCTCTGCTCAGCCTCCCAAGC
AGATGGGACTACAGGTACTGGTAGTTAACTCTCAAGGAGAAATTTACGGTTGAGCACCGAAAAGAAAGTGGTCA
TGAAAGGAAGTATCAACAATTATCTTAAATTGGGTCAAGAAAGGAAGTATCGCGTCTACCACAATCAATACTCCA
CTAATTCAATTTGCTTTGAATAAGCACCAGCACAGAGAAGACCATGATAAGAGAAGGCATCTTGACATAAGTTCT
GTCTGACTCCAGCAGGAGAGTTCAAATGGAACGGTTCTGTCCATGGGTCCAAAGTTCTTACCATATCTACTCTGA
GACTGACTATCACCCAATTAGAAAACAACATCCCTTCATCCTTTCTTCATCCCAACCGGGCATCACATAGGGCAA
ACTGGATCAAGGCAGTTCAGATGTGTAGCAAACTCAGAGAATTTGCATTGGCTTTAGCCATTTTGGAGTGTGCAG
TTAAACCAAGTTGTGATGCTACCAATATGGCGAGAATCTTTAGGACATACCAGCTTTCTCCCTTTGTCTCATAACC
ATGTCCACCAATGAGAATGCTAATACACAAGCTGCCCATCTTCACAGATCTAAGAACAAGGGAAAGGACAGTACA
GAAACGAGGCGTCACAGAATAGAGGTCAATGTGGAGCTGAGGAAAGCTAAGAAGGATGACCAGATGCTGAAGAGG
AGAAATGTAAGCTCATTTCTGATGATGCTACTTCTCCGCTGCAGGAAACTGCAACAACCAGGACTCCTGCCCT
AAGAGCCATAGGGAATATCGTCACTGGTACAGATGAACAGACTCAGGTTGTGATTGATGCAGGAGCACTCGCCGT
CTTTCCAGCCTGCTCACCAACCCCAAACTAACATTGAGAAGGAAGCTACGTGGACAATGTCAAACATCACAGC
CAGCCGCCAGGACCAGATACAGCAAGTTGTGAATCATGGATTAGTCCCATTCCTTGTCAGCGATCTCTCTAAGAT
TTTGAGACACAAAAGGAAGCTGTATGGGCGGTGGAACAGTTGAACAGATTGTGTACCTTGTTCACTGTGGCATAA
TAGAACCCTTGATGAACCTCTTACCTGCAAAAAGATACCAAGATTATTCTGGTTATCCTGGATGCCATTTCAATA
TCTTTCAGGCTGCTGAGAACTAGGTGAAACTGAGAACTTAGTATAATGATTGAAGAATGTGGAGGCGTAGACA
AAATTGAAGCTCTACAAAACCATGAAAATGAGTCTGTATATAAGGCTTCATTAAGCTTAAGTGAAGTATTCT
CTGTAGAGCTGCCAGAGCAGAGCTGAGCCACCCATTGCTGGAGAGGACATCCACGCAGGCCTGGACGAGCCGGAC
TGCTTACTAAGGATTTCTCCGTATCTGACTGCAACTCAGCACTCAGCTGCATGCGGGACAGGAAGAGGAAGAT
CAAAACGTTGTGCCAGAACTACCTCTGAAGGCTACACTTTCCAAGTTCAGGATGGGGCTCCTGGGACCTTTAAC
TTTTAGATCATGTAGCTGAGGCATAAATTTGTTGTGTACTATGTTTGGTATTTTGTCTTATTGTTTCTCTACTAA
GAACTCTTTCTTAAATGTGGTTTGTATTGTAGCACTTTTACACTGAACTATACTTGAACAGTTCCAAGTGA
CATACTGTATGAAGCTTGTCTCTGACTAGGTTTCTAATTTCTATGTGGAATTTCTATCTTGCAGCATCCTGTA
AATAAACATTCAAGTCCACCTTTTCTTGACTTC

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FIGURE 4952

MTSPRTGTPALDNQPQTGIPRAAGGRDAGTPGQQIPGGEGKGEGGTGEAHPPWAPLATSQRPFRRSLPGSGPRLS
APVLVPMPPKVPSRGIQVPPRPAQTQLLWVWVTALLSVAVPIRCRCQLRFRETSPAPPRKPRPGRWSGPNLPAPP
TRPLGSLRPAQQTPESENGVISAHCNLCCLQGSSGSPASASQADGTTGTGS

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FIGURE 4953

GCCAGTGAATT CGGGGGCTCAGCCCTCCTCCCTCCCTTCCCCCTGCTTCAGGCTGCTGAGCACTGAGCAGCGCTC
AGAATGGAAGCCATCGCCAAATATGACTTCAAAGCTACTGCAGACGACGAGCTGAGCTTCAAAGGGGGGACATC
CTCAAGGTTTTGAACGAAGAATGTGATCAGAACTGGTACAAGGCAGAGCTTAATGGAAAAGACGGCTTCATTCCC
AAGAACTACATAGAAATGAAACCACATCCGTGGTTTTTTGGCAAAATCCCCAGAGCCAAGGCAGAAGAAATGCTT
AGCAAACAGCGGCACGATGGGGCCTTTCTTATCCGAGAGAGTGAGAGCGCTCCTGGGGACTTCTCCCTCTCTGTC
AAGTTTGGAACGATGTGCAGCACTTCAAGGTGCTCCGAGATGGAGCCGGGAAGTACTTCTCTGGGTGGTGAAG
TTCAATTCTTTGAATGAGCTGGTGGATTATCACAGATCTACATCTGTCTCCAGAAACCAGCAGATATTCTGCGG
GACATAGAACAGGTGCCACAGCAGCCGACATACGTCCAGGCCCTCTTTGACTTTGATCCCCAGGAGGATGGAGAG
CTGGGCTTCCGCCGGGGAGATTTTATCCATGTCATGGATAACTCAGACCCCAACTGGTGGAAAGGAGCTTGCCAC
GGGCAGACCGGCATGTTTCCCCGCAATTATGTCACCCCGTGAACCGGAACGCTTAAGAGTCAAGAAGCAATTAT
TTAAAGAAAGTGAAAAATGTAAACACATACAAAAGAATTAAACCCACAAGCTGCCTCTGACAGCAGCCTGTGAG
GGAGTGCAGAACACCTGGCCGGGTCAACCCTGTGACCCCTCACTTTGGTTGGAACTTTAGGGGGTGGGAGGGGGC
GTTGGATTTAAAAATGCCAAACTTACCTATAAATTAAGAAGAGTTTTTATTACAAATTTTCACTGCTGCTCCTC
TTTCCCTCCTTTGCTTTTTTTTCATCCTTTTTTCTCTTCTGTCCATCAGTGCATGACGTTTAAGGCCACGTAT
AGTCCTAGCTGACGCCAATAATAAAAAACAAGAAACCAAAAAAAAAAAAAACCCGAATTCA

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FIGURE 4954

MEAI AKYDFKATADDELSFKRGDILKVLNEECDQNWYKAELNGKDGFI PKNYIEMKPHPWFFGKIPRAKAEEMLS
KQRHDGAFLIRESESAPGDFSLSVKFGNDVQHFKVLRDGAGKYFLWVVKFNSLNELVDYHRSTSVSRNQQIFLRD
IEQVPQQPTYVQALFDFDPQEDGELGFRRGDFIHVMDNSDPNWWKGACHGQTGMFPRNYVTPVNRNV

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FIGURE 4955

GGCACGAGGGCTCTGAGCGGGAGGCCTGAGCGGGAAGCATTGGCGTCCGAGCGACTTCTAGGAGCCTGGGGTTTCG
GCGCTATGGGAGGAGCTCGATGGCGAGCCAACAGTCACTTTGATTCCAGGCGTGAAATCCAAGAAGAACCAAATGT
ATTTTGACTGGGGTCCAGGGGAGATGCTGGTATGTGAAACCTCCTTCAACAAAAAGAAAAATCAGAGATGGTGC
CAAGTTGCCCTTTATCTATATCATCCGTAAGGATGTAGATGTTTACTCTCAAATCTTGAGAAAACCTCTTCAATG
AATCCCATGGAATCTTTCTGGGCTCCAGAGAATTGACGAAGAGTTGACTGGAAAAATCCAGAAAATCTCAATTGG
TTCGAGTGAGTAAAACTACCGATCAGTCATCAGAGCATGTATGGAGGAAATGCACCAGGTTGCAATTGCTGCTA
AAGATCCAGCCAATGGCCGCCAGTTCAGCAGCCAGGTCTCCATTTTGTGAGCAATGGAGCTCATCTGGAACCTGT
GTGAGATTCTTTTTATTGAAGTGGCCCGAGCTGGCCCTCTCCTCCTCCATCTCCTTGACTGGGTCCGGCTCCATG
TGTGCGAGGTGGACAGTTTGTGCGCAGATGTTCTGGGCAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGT
TGGTGACCATCTTGGTGCTGCAGGGCCGGCTGGATGAGGCCCGACAGATGCTCTCCAAGGAAGCCGATGCCAGCC
CCGCCTCTGCAGGCATATGCCGAATCATGGGGGACCTGATGAGGACAATGCCCATTTCTTAGTCCTGGGAACACCC
AGACACTGACAGAGCTGGAGCTGAAGTGGCAGCACTGGCAGCAGGAATGTGAGCGGTACCTCCAGGACAGCACAT
TCGCCACCAGCCCTCACCTGGAGTCTCTCTTGAAGATTATGCTGGGAGACGAAGCTGCCTTGTTAGAGCAGAAGG
AACTTCTGAGTAATTGGTATCATTTCCTAGTGACTCGGCTCTTGTTACTCCAATCCACAGTAAACCCATTGATC
TGCACTACTATGCCCAGTCCAGCCTGGACCTGTTTCTGGGAGGTGAGAGCAGCCCAGAACCCCTGGACAACATCT
TGTTGGCAGCCTTTGAGTTTGACATCCATCAAGTAATCAAAGAGTGACAGCATCGCCCTGAGCAACTGGTGGTTTG
TGGCCACCTGACAGACCTGCTGGACCACTGCAAGCTCCTCCAGTCACACAACCTCTATTTGCGTTCCAACATGA
GAGAGTTCCCTCTGCTGGAGTACGCCTCGGGACTGTTTGCTCATCCCAGCCTGTGGCAGCTGGGGGTCGATTACT
TTGATTACTGCCCCGAGCTGGGCCGAGTCTCCCTGGAGCTGCACATTGAGCGGATACCTCTGAACACCGAGCAGA
AAGCCCTGAAGGTGCTGCGGATCTGTGAGCAGCGGCAGATGACTGAACAAGTTCGAGCATTGTGAAGATCTTAG
CCATGAAAGCCGTCCGCAACAATCGCCTGGGTTCTGCCCTCTCTTGAGCATCCGTGCTAAGGATGCCGCCTTTG
CCACGCTCGTGTGACAGAGTTCCCTCAGGGATTACTGTGAGCGAGGCTGCTTTTCTGATTGGATCTCATTGACA
ACCTGGGGCCAGCCATGATGCTCAGTGACCGACTGACATTCCTGGGAAAGTATCGCGAGTTCACCGTATGTACG
GGGAGAAGCGTTTTGCCGACGCAGCTTCTCTCCTTCTGTCCTTGATGACGTCTCGGATTGCCCCCTCGGTCTTTCT
GGATGACTCTGCTGACAGATGCCTTGCCCCCTTTGGAACAGAAACAGGTGATTTTCTCAGCAGAACAGACTTATG
AGTTGATGCGGTGTCTGGAGGACTTGACGTCAAGAAGACCTGTGCATGGAGAATCTGATACCGAGCAGCTCCAGG
ATGATGACATAGAGACCACCAAGGTGGAATGCTGAGACTTCTCTGGCACGAAATCTTGCTCGGGCAATTATAA
GAGAAGGCTCACTGGAAGGTTCTTGAGAACTGCTTCAATGTGGTATCTTTGTATGGCAATGTATATAGATTTTTT
AAAAGAATAAATGTTGTTTTGCAATGTAAAAAAAAAAAAAAAAAAAAA

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FIGURE 4956

MEELDGEPTVTILIPGVNSKKNQMYFDWGPGEMLVCETSFNKKKSEMVPSCFFIYIIRKDVVDVYSQILRKLFNES
HGIFLGLQRIDEELTGKSRKSQLVRVSKNYRSVIRACMEEMHQVAIAAKDPANGRQFSSQVSILSAMELIWNLC
ILFIEVAPAGPLLLHLLDWVRLHVCEVDSLADVLGSENP SKHDSFWNLVTILVLQGRLEARQMLSKEADASPA
SAGICRIMGDL MRTMPILSPGNTQTLELELKWQHWHEECERYLQDSTFATSPHLESLLKIMLGDEAALLEQKEL
LSNWHFLVTRLLYSNPTVKPIDLHYAQQSSLDLFLGGESSPEPLDNILLAAFEFDIHQVIKECSIALSNWWFVA
HLTDLLDHCKLLQSHNLYFGSNMREFLLLEYASGLFAHPSLWQLGVDYFDYCPELGRVSLELHIERIPLNTEQKA
LKVLRICEQRQMTEQVRSICKILAMKAVRNNRLGSALSWSIRAKDAAFATLVSDRFLRDYCERGCFSDDLIDNL
GPAMMLSDRLTFLGKYREFHRMYGEKRFADAASLLLSLMTSRIAPRSFWMTLTLDALP LLEQKQVIFS AEQTYEL
MRCLEDLT SRRPVHGESDTEQLQDDDIETTKVEMLRLSLARNLARAI IREGSLEGS

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FIGURE 4957

GGTGTGCTTGTGTGCTCGTTTGGTGCGGACCTGGTACCTCTTTTGTGAAGCGGCAGCTGAGGAGACTCCGGCGC
TCGCCATGGCCGACGAAAAGCCCAAGGAAGGAGTCAAGACTGAGAACAACGATCATATTAATTTGAAGGTGGCGG
GGCAGGATGGTTCTGTGGTGCAGTTTAAGATTAAAGAGGCATACACCACTTAGTAACTAATGAAAGCCTATTGTG
AACGACAGGGATTGTCAATGAGGCAGATCAGATTCCGATTGACGGGCAACCAATCAATGAAACAGACACACCTG
CACAGTTGGAAATGGAGGATGAAGATACAATTGATGTGTTCCAACAGCAGACGGGAGGTGTCTACTGAAAAGGGA
ACCTGCTTCTTTACTCCAGAACTCTGTTCTTTAAAGACCAAGATTACATTCTCAATTAGAAAAGTCAATTTGGT
TCCACCACATCCTGACTACTACCGTATAGTTTTCTCTATTCTTTCATTTCCCCCTTCCCCATTCTTTATTGTAC
ATAAAGTAACTGGTATATGTGCACAAGCATATTGCATTTTTTTTTTTTTTAACTAAACAGCCAATGGTATGTTTT
GATTGACATCAAGTGGAGACGGGATGGGGAAAAATACTGATTCTGTGAAAAATACCCCTTTCTCCATTAGTGGCA
TGCTCATTACGCTCTTA

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FIGURE 4958

GCAGCGGAGCTTCGGCCTCGGCTCTGTACCATGAAGAAGGGCCCCAGTGGCTATGGCTTCAACCTGCACAGCGA
CAAGTCCAAGCCAGGCCAGTTTCATCCGGTCAGTGGACCCAGACTCCCCGGCTGAGGCTTCAGGGCTCCGGGCCCA
GGATCGCATTGTGGAGGTGAACGGGGTCTGCATGGAGGGGAAGCAGCATGGGGACGTGGTGTCCGCCATCAGGGC
TGGCGGGGACGAGACCAAGCTGCTGGTGGTGGACAGGGAACTGACGAGTTCTTCAAGAAATGCAGAGTGATCCC
ATCTCAGGAGCACCTGAATGGTCCCCTGCCTGTGCCCTTCACCAATGGGGAGATACAGAAGGAGAACAGTCGTGA
AGCCCTGGCAGAGGCAGCCTTGGAGAGCCCCAGGCCAGCCCTGGTGAGATCCGCCTCCAGTGACACCAGCGAGGA
GCTGAATTCCCAAGACAGCCCCCAAACAGGACTCCACAGCGCCCTCGTCTACCTCCTCCTCCGACCCCATCCT
AGACTTCAACATCTCCCTGGCCATGGCCAAAGAGAGGGCCCCACCAGAAACGCAGCAGCAAACGGGGCCCCGCAGAT
GGACTGGAGCAAGAAAAACGAACTCTTCAGCAACCTCTGAGCGCCCTGCTGCCACCCAGTGACTGGCAGGGCCGA
GCCAGCATTCACCCCCACCTTTTTCTTTCTCCCAATTACTCCCCCTGAATCAATGTACAAATCAGCACCCACATC
CCCTTTCTTGACAAATGATTTTTCTAGAGAACTATGTTCTTCCCTGACTTTAGGGAAGGTGAATGTGTTCCCGTC
CTCCCGCAGTCAGAAAGGAGACTCTGCCTCCCTCCTCCTCACTGAGTGCCTCATCCTACCGGGTGTCCCTTTGCC
ACCCTGCCTGGGACATCGCTGGAACCTGCACCATGCCAGGATCATGGGACCAGGCGAGAGGGCACCCCTCCCTTCC
TCCCCCATGTGATAAATGGGTCCAGGGCTGATCAAAGAACTCTGACTGCAGAACTGCCGCTCTCAGTGGACAGGG
CATCTGTTACCCTGAGACCTGTGGCAGACACGTCTTGTTTTCAATTTGATTTTTGTTAAGAGTGCAGTATTGCAGA
GTCTAGAGGAATTTTTGTTTCCTTGATTAACATGATTTTCTGGTTGTTACATCCAGGGCATGGCAGTGGCCTCA
GCCTTAAACTTTTGTTCTACTCCACCCCTCAGCGAACTGGGCAGCACGGGGAGGGTTTGGCTACCCCTGCCCAT
CCCTGAGCCAGGTACCACCATTGTAAGGAAACACTTTCAGAAATTCAGCTGGTTCTTCCAAACC

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FIGURE 4959

MSADAAAGAPLPRLCCLEKGPNGYGFFHLHGEKGKLGQYIRLVEPGSPAEEKAGLLAGDRLVEVNGENVEKETHQQV
VSRIRAAALNAVRLLVVDPETDEQLQKLGQVREELLRAQEAPGQAEPPAAAEVQGAGNENEPREADKSHPEQREL
RPRLCTMKGPSGYGFNLHSDKSKPGQFIRSVDPSPAEASGLRAQDRIVEVNGVCMEGKQHGDVVSAIRAGGDE
TKLLVVDRETDEFFKKCRVIPSQEHNLGPLPVPFTNGEIQKENSREALAEAALESPPALVRSASSDTSEELNSQ
DSPPKQDSTAPSSSTSSDPILDFNISLAMAKERAHQKRSSKRAPQMDWSKKNELFSNL

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FIGURE 4960

CGCCCAGCAGCCCGTGGGCAGGCGCGGCGGAGCGAGCGGGGCCGGCGGGCGGGCGCCGAGGGACGCCGAGGCCTCG
GGCGGGGGCTGGCCCGGGGTTCAGGTCTCCAGTGGGGGCTGCAGACTAAGCAAAATGAGGCGGTTCTTGAGGCC
AGGGCATGACCCTGTGCGGGAGAGGCTCAAGCGGGACCTGTTCCAGTTTAACAAGACGGTGGAGCATGGCTTCCC
GCACCAGCCCAGCGCCCTCGGCTACAGCCCCTCCCTGCACATCCTGGCCATCGGCACCCGTTCTTGAGGCCATCAA
GCTCTACGGAGCCCCAGGCGTGGAGTTTATGGGGCTGCACCAGGAGAACAACGCTGTGACGCAGATCCACCTCCT
GCCCGGCCAGTGCCAGCTGGTACCCCTGCTGGATGACAACAGCCTGCACCTTTGGAGCCTGAAGGTCAAGGGCGG
GGCATCGGAGCTGCAGGAGGATGAGAGCTTCACTGCTGGACCCCGAGGGGCTGCCCCCAGTGCCACACAGAT
CACCGTGGTCTTGCCACATTCTCCTGCGAGCTGCTTACCTGGGCACCGAGAGTGGCAACGTGTTTGTGGTGCA
GCTGCCAGCTTTTCTGTCGCTGGAGGACCGGACCATCAGCTCGGACGCGGTGCTGCAGCGGTTGCCAGAGGAGGC
CCGCCACCGGCGTGTGTTGAGATGGTGGAGGCACTGCAGGAGCACCTCGAGACCCCAACCAGATCCTGATCGG
CTACAGCCGAGGCCTCGTTGTCTCTGGGACCTACAGGGCAGCCGCGTGCTTACCACTTCTCAGCAGCCAGCA
ACTGGAGAACATCTGGTGGCAGCGGGACGGCGCCTGCTCGTCACTGTCACTCTGACGGCAGCTACTGCCAGTG
GCCCGTGTCCAGCGAAGCCCAGCAACCAGAGCCCCCTCCGACGCTCGTGCCTTACGGTCCCTTTCTTGCAAAGC
GATTACCAGAACTCTTGGCTGACCACTAGGCAGGGGTGCCCCTTACCATCTTCCAGGGTGGCATGCCACGGGC
CAGCTACGGGGACCGCCACTGCATCTCAGTGATCCACGATGGCCAGCAGACGGCCTTCGACTTCACCTCCCGTGT
CATCGGCTTCACTGTCTCTACAGAGGCAGACCTGACGCCACCTTTGACGACCCCTATGCCCTGGTGGTGTGGC
TGAGGAGGAGCTGGTGGTGATTGACCTGCAGACAGCAGGCTGGCCACCGGTCCAGCTGCCCTACCTGGCTTCTCT
GCACTGTTCCGCCATCACCTGCTCTCACCACGTCTCCAACATCCCGCTGAAGCTGTGGGAGCGGATCATTGCCGC
CGGCAGCCGGCAGAACGCACACTTCTCCACCATGGAGTGGCCAATTGATGGTGGCACCAGCCTGACCCCAAGCCCC
ACCCAGAGGGACCTGCTGCTCACAGGGCAGGAGACGGCACGGTGCAGTCTGGGATGCCTCGGGTGTCTGCCT
GCGGCTGCTCTACAACTCAGCACTGTGCGCGTGTTCCTCACCACACGGACCCCAACGAGAACTTCACTGCCCA
GGCGGAGGACGAGTGGCCCCACTCCGCAAGGTGGGCTCCTTTGACCCCTACAGTGATGACCCCGGCTGGGCAT
CCAGAAGATCTTCTCTGCAAGTACAGCGGCTACCTGGCTGTGGCAGGCACGGCAGGGCAGGTGCTGGTACTGGA
ACTGAATGACGAGGACGGGAGCAGGCTGTGGAGCAGGTGGAGGCCGACCTGCTGCAGGACCAAGAGGGCTACCG
CTGGAAGGGGCACGAGCGCCTGGCAGCCCGCTCAGGGCCCGTGCAGTCTTGGGATGCCTCGGGTGTCTGCCT
GGTGCAGTGTGACCCCCGGCTGTGGTCACTCCTTGGCCCTGCACTCTGAGTGGCGGCTCGTGGCCTTCGGCAC
CAGCCATGGCTTTGGCCTCTTTGACCACACAGCGCGGCGGACGGTCTTTGTTAAGTGCACACTGCACCCAGTGA
CCAGCTGGCCTTGGAGGGGCCACTCTCCCGCTCAAGTCCCTCAAGAAGTCCCTGCGTCAGTCATTCCGCCGAT
GCGTCGGAGCCGGGTGTCCAGCCGGAAGCGGCACCCGGCTGGCCCCCAGGAGAGGCAGGGGAGTGCACAA
GGCTGAGCGGCCAGGCCTCCAGAACATGGAGCTGGCGCCTGTGCAGCGCAAGATCGAGGCTCGCTCGGCAGGGA
CTCCTTACAGGCTTCTGTCGGGACCTGTACTTTGCTGACACCTACCTGAAGGACAGCTCCCGGCACTGCCCTC
GCTGTGGGCTGGCACCATGGGGGCACCATCTATGCCCTTCTCCCTGCGTGTGCCTCCCGCCGAGCGGAGAATGGA
TGAGCCTGTGCGGGCAGAGCAGGCCAAGGAGATCCAGCTGATGCACCGGGCGCCGGTGGTGGGCATCCTGGTGT
CGACGGACACAGCTTACCCCTTCCCGAGCCCCCTCGAAGTGGCCCATGATCTGTCTGAAGAGCCCTGACATGCAGGG
AAGCCACCAGCTGCTGCTGTATCAGAGGAGCAGTTCAAGGTGTTACGCTGCCCAAGGTGAGTGCCAAGCTGAA
GTTGAAGCTGACGGCCCTGGAGGGCTCAAGAGTGCAGCGGGTACGCTGGCCCACTTCGGCAGTCTGTCAGCCGA
GGACTACGGGGAGCACCACTGGCAGTCTTACCAACCTGGGCGACATCCAGGTGGTCTCGCTGCCCTGCTCAA
GCCCCAGGTGCGCTACAGCTGCATCCGCCGGGAGGACGTGAGTGGCATCGCCTCCTGCGTCTTACCAAAATATGG
CCAAGGCTTCTACCTGATCTCACCTCGGAGTTTGGAGCGCTTCTCTCTCTCCACCAAGTGGTGGTGGAGCCCCG
GTGCTGGTGGATTACAGCAGAAACCAAGAACCCCGCCTGGTAACGGTGCAGGGCCCCAAGAAGGCCCGAGCCG
AGCCAGGAACCTCAGGACTCAGAGTGATGGCGAGGAGAAGCAGCCCGGCTGGTGTGAGCGCGCTCTGCTCAG
TGATGAGAGAGCGGCAACTGGCGTTCACATCGAGCCGCGTGGGGTGCAGCCTCAGCAATGGCGGAGCAGAGTGA
GTGGCTGAGCGTCCAGGCTGCGCGATGAGCAGACACTACTGATGGCCTTTCCGGGGTCCCTGCCCAACCGG
AGAGGCCGCTGCACAGGGCCCCGCCAGGGGCTGGGGGCATCCCGGCTTCCACAATGCAGCTGCTCTGGGCTCGG
GAGAGGAGAGACCCAGTCCCTGGGCTGCCCTTCCGGGCTCGTCTGTCTGGGTCTTTGGTCAATGTTGCAC
AGTTTTTATGCTCCCATCCCTTTTGTAGTGGGCTGGGTTTTAAGTTATAAATGTTAACTGCCTCTGGGTGAAA
AAGTTTTTAATAAACACCTATTACCTCTTG

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FIGURE 4961

MRRFLRPGHDPVRERLKRDLFQFNKTVEHGFFHQPSALGYSPSLHILAIGTRSGAIKLYGAPGVEFMGLHQENNA
VTQIHLLPGQCQLVTLLDDNSLHLWSLKVKGASELQEDSF TLRGPPGAAPSATQITVVLP HSSCELLYLGTES
GNVFVQLPAFRALEDRTISSDAVLQRLPEEARHRRVFEMVEALQEHPRDPNQILIGYSRGLVVIWDLQGSRLVY
HFLSSQQLENIWWQRDGRLLVSCHSDGSYCQWPVSSEAQQPEPLRSLVPYGFPPCKAITRILWLTTTQGLPFTIF
QGGMPRASYGDRHCISVIHDGQQTAFDFTSRVIGFTVLTADPAATFDDPYALVVLAEELVVIDLQTAGWPPVQ
LPYLASLHCSAITCSHHVSNIPKLWERIIAAGSRQNAHFSTMEWPIDGGTSLTPAPPQRDLLLLTGHDGTVRFW
DASGVCLRLLYKLSTVRVFLTDTPNENFSAQGEDEWPPLRKVGSFDPYSDDPRLGIQKIFLCKYSGYLAVAGTA
GQVLVLELNDEAAEQAVEQVEADLLQDQEGYRWKGHERLAARSGPVRFEPPGFQPFVLVQCQPPAVVTSALHSEW
RLVAFGTSHGFGLFDHQRRQVFVKCTLHPSDQLALEGPLSRVKSLLKSLRQSFRMRRSRVSSRKRHPAGPPGE
AQEGSAKAERPGLQNMELAPVQRKIEARSAEDSFTGTFVRTLYFADTYLKDSSRHCPSLWAGINGGTIYAFSLRVP
PAERRMDEPVRAEQAKEIQLMHRAPVVGILVLDGHSVPLPEPLEVAHDLSKSPDMQGSQLLLVSEEQFKVFTLP
KVS AKLKLKLTAL EGSRRVRSVAHFGSRR AEDYGEHHLAVLTNLGDIQVVS LPLLKPQVRYSCIRREDVSGIAS
CVFTKYGQGFY LIS PSEFERFSLSTKWLVEPRCLVDSAETKNHRPGNGAGPKKAPSRRNSGTQSDGEEKQPGLV
MERALLSDERAATGVHIEPPWGAASAMAEQSEWLSVQAAR

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FIGURE 4962A

GTGGGTTCTGCCTAAAGCTGAATTCACAGCGCTTTGGCTTCTCTGAGTTGGGGTTGTGTATAGGGGTCTTCGAAC
AGTTCCGGAACCAAGCAGCAGCCTTTAATTCCTTGGGCGGACCACGGCCGGTTCTGATATCTTAGGGTGAAGAGAG
GGAGGTGTCGGCCAGCCAAGAGAGAAAATTGCGGATCTTGGGCTCAGGAAGACGGGAGAAGGGGTTCCGGGGTCCC
GGGGTGAAGAACGGTCGTCGTGGTTGCGCTTATAGAAGTAGGAGCAGAGGGTTCTCGTGGCAACCTTTTACTAC
CTTTGCCTTAACCTTTGGCCACTGTTCTTGGCTAAGATGAGCAGCCACCATAACCACTTTTCTTTGACCCTGAG
CGGCGAGTCCGGAGTACGCTGAAGAAGGTCTTTGGGTTTGACTCTTTTAAGACGCCCTTTACAGGAGAGTGCGACC
ATGGCTGTAGTAAAAGGTAACAAGGACGTCTTTGTGTGCATGCCACAGGGGCAGGAAAATCCCTATGCTATCAG
CTCCCTGCTCTGTTGGCCAAAGGCATCACCATTGTAGTCTCTCCTCTCATTGCTTTGATTACAGGACCAAGTGGAC
CACTTGCTAACCCTAAAGGTACGAGTAAGTTCCCTGAACCTCGAAGCTCTCTGCACAGGAAAAGGAAGGAGCTGCTT
GCTGACCTGGAGCGAGAAAAGCCCCAGACCAAGATTCTGTACATCACCACAGAGATGGCAGCTTCATCCTCCTTC
CAGCCACCTTGAACCTCCCTGGTGTCCCGCCACCTGCTGTCTTACTTGGTGGTGGATGAAGCTCATTGTGTTTTCC
CAATGGGGGATGACTTTTCGTCCTGACTACTTGCCTCTGGGTGCCCTGCGCTCCCGCTGGGACATGCCCCTTGT
GTGGCTCTGACCGCCACAGCCACCCACAGGTCCAAGAGGACGTGTTTGTCTGCCCTGCACCTGAAGAAACAGTT
GCCATCTTCAAGACTCCCTGCTTCCGGGCCAACCTCTTCTATGATGTGCAATTCAAGGAACTGATTTCTGATCCC
TATGGGAACCTGAAGGACTTCTGCCTTAAGGCTCTTGGACAGGAGGCTGATAAAGGGTTATCTGGCTGCGGCATT
GTGTACTGCAGGACTAGAGAGGCTTGTGAACAGCTGGCCATAGAGCTCAGCTGCAGGGGTGTGAACGCCAAGGCT
TACCATGCAGGGCTGAAGGCTCTGAAAGAACGCTGGTGCAGAACGACTGGATGGAGGAGAAGGTCCCTGTAATT
GTTGCAACCATTAGTTTTGGGATGGGAGTGGATAAAGCCAATGTCAGGTTTGTGCCCCATTGGAATATTGCCAAG
TCTATGGCTGGGTACTACCAGGAGTCTGGCCGGGCTGGCAGGGATGGGAAGCCTTCTTGGTGGCGTCTCTATTAC
TCCAGGAATGACCGGGACCAAGTCAGCTTCCGTATCAGGAAGGAAGTAGCAAACTCCAGGAAAAGAGAGGAAAC
AAAGCATCTGATAAAGCCACTATCATGGCCTTTGATGCCCTGGTGACCTTCTGTGAAGAACTGGGGTGCCGCCAT
GCCGCCATTGCCAAGTACTTCGGGGATGCGCTGCCCTGCCCTGCGCCAAAGGCTGCGACCACTGCCAGAACCCACG
GCCGTGCGGAGGCGGCTGGAGGCTTGGAGCGCAGCAGCTGGAGCAAGACCTGCATCGGGCCCTCCAGGGG
AACGGCTTTGACCCGAGCTGTATGAGGGAGGCCGAAGGGCTACGGGGACTTCAGCAGGTATGACGAAGGTTCT
GGAGGCAGCGGGATGAAGGCAGAGATGAGGCCACAAGCGGGAGTGAACCTCTTCTATCAGAAGCAGATGCAG
CTGCGCAAGGGCAAAGACCCCAAGATAGAAGAAATTGTACCCCAAGATGAGAACTGTCCCTGAAAGAGGCTTCT
AGCAGGAGGATCCCCAGGCTGACTGTGAAGGCAGGGAGCACTGCCTGCGGCTTCTGGAGGAGGCGCTGAGCAGC
AACCGCAGTCAACAGTACCGCTGATGAAGCTGACCTCCGGGCCAAGGCCGTGGAGCTGGAACATGAGACATT
CGGAACGCCAAGGTGGCCAACCTCTACAAGGCCAGCGTGTGAAGAGGTGGCCGATATCCACAGAGCTTCAAG
GATGGGCAGCCCTATGACATGGGAGGCAAGTGCCTGAGCTGCCCCAGGCCCCGAGCCCAATGAG
TATGACATTCCACCAGCCTCCCATGTGTACTCGCTCAAACCAAGCGGGTGGGAGCTGGTTTCCCCAAAGGCTCC
TGCCCGTTCCAGACGGCCACGGAAGTATGGAGACAAGTCCGATCAGGGAGCAAGCCCCCAGCCGAGCGGGGA
GGCGAGCACGAGCCCCGAGCCGGCCCTGTGGCTCCTGGATGAGGATGGGAGTGAGCCCCCTCCCTGGGCCAGA
GGGGAGGTCCCTGGAGGCAGCGCTCACTATGGGGGCCCTCCCCTGAGAAGAAGGCAAAAAGTTTCTCTGGGGC
AGCTCCCTTGCCAAGGGCCGGGCTAGCAAGAAACAGCAGCTCCTAGCCACAGCGGCCACAAGGATTCTCAGAGC
ATCGCCCGCTTCTTCTGCCGAAGGGTGGAAAGCCAGCTCTGCTGGCATCAGCCCCAGAGGCAGAAGGTGCCTGC
CCCTCCTGTGAGGGGGTTTCAAGGACCCCCGATGGCCCCAGAGAAGTACACAGGGGAGGAAGATGGAGCCGGGGGA
CATTGCGCTGCCCCCTCCCCAGACTGAGGAGTGCTCAGGGAGAGGGCCAAGCACCTGCCCGCCAGAGACCAGGGC
ACCCCTGAAGTCCAGCCACCCCTGCAAGGACACATGGAAGGGCAAGCGGCCCTCGATCCCAGCAGGAGAACCCA
GAGAGCCAGCCTCAGAAGAGGCCACGCCCCCTCAGCCAAGCCCTCCGTCTAGCTGAGGTCAAGGGCAGCGTCTCG
GCCAGCGAACAGGGCACCTTGAATCCACGGCTCAAGACCCCTTCCAGCTCTCCGCTCCTGGCGTCTCCTTGAAG
GAGGCTGCAAATGTTGTGGTCAAGTGCCTCACCCCTTTCTACAAGGAGGGCAAGTTTGTCTTCAAGGAGTTGTTT
AAAGGCTTTGCCCGCCACCTCTCACACTTGCTGACTCAGAAGACCTCTCCTGGAAGGAGCGTGAAAGAAGAGGCC
CAGAACCTCATCAGGCACTTCTTCCATGGCCGGGCCCGGTGCGAGAGCGAAGCTGACTGGCATGGCCTGTGTGGC
CCCCAGAGATGACCAACTGCTGGCTGGGCAGGGCCCGCTCCTCCCCAGATTCTAGCATGGGTATCCTGGGCC
TCACCTGCTGATGCCAGGGCCATCGTCTTTTCTCAGTCTTCTCCTTTCCAACCATACTTGGCTTTGGGGATGAC
CCCAGACACCCCTGAATCCAGGTCAGAGGTCAGCCACCTTCTTTCTGCTTGCAAAGCCTATAGACCCCTTCTC
AGAGCGTCTCATGGCTGGGTTTTCTGGACACATGTGAGGACAGAAGGTGGAGGGTGGTGGAGCTGCTGCTG

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FIGURE 4962B

GAAGAAGGGGAAGGAAGAGTGGCCCCCTCCCCGAGTTCTAAGTCAGGATGAGGCCCACCTGTCCAAGGTATCGGAA
CCTACCCAGGGGACCCTCAGATCCTCCACCCACTCCCCCATCCATTACGATGCCAGCTTCCAGCCTTGCCCAGGT
CAGAGCTGTGGCAGAGGAGAGGCAGCCAGGCCCTGTTTCCTGCTCAGCTCCTGCTCAGGAAGGCCAGGCCTGACAG
ATGTTTGGGAGAGGAATAAAGTTGTGTTGTTGTGGGGCATGCAGGCGTGCACAC

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FIGURE 4963A

GCGCTGCCCGCCTCGTCCCCACCCCCAACCCCCGCGCCCGCCTCGGACAGTCCCTGCTCGCCCGCGCGCTGC
AGCCCCATCTCCTAGCGGCAGCCCAGGCGCGGAGGGAGCGAGTCCGCCCCGAGGTAGGTCCAGGACGGGCGCACA
GCAGCAGCCGAGGCTGGCCGGGAGAGGGAGGAAGAGGATGGCAGGGCCACGCCCCAGCCCATGGGCCAGGCTGCT
CCTGGCAGCCTTGATCAGCGTCAGCCTCTCTGGGACCTTGCCAAACCGCTGCAAGAAGGCCCCAGTGAAGAGCTG
CACGGAGTGTGTCCGTGTGGATAAGGACTGCGCCTACTGCACAGACGAGATGTTTCAGGGACCGGCGCTGCAACAC
CCAGGCGGAGCTGCTGGCCGCGGCTGCCAGCGGAGAGCATCGTGGTCATGGAGAGCAGCTTCCAAATCACAGA
GGAGACCCAGATTGACACCACCTGCGGCGCAGCCAGATGTCCCCCAAGGCTGCGGGTCCGTCTGCGGCCCGG
TGAGGAGCGGCATTTTGAGCTGGAGGTGTTTGAGCCACTGGAGAGCCCCGTGGACCTGTACATCCTCATGGACTT
CTCCAACCTCCATGTCCGATGATCTGGACAACCTCAAGAAGATGGGGCAGAACCTGGCTCGGGTCTTGAGCCAGCT
CACCAGCGACTACACTATTGGATTGGCAAGTTTGTGGACAAAGTCAGCGTCCCGCAGACGGACATGAGGCCTGA
GAAGCTGAAGGAGCCCTGGCCCAACAGTGACCCCCCTTCTCCTTCAAGAAGCTCATCAGCCTGACAGAAGATGT
GGATGAGTTCCGGAATAAACTGCAGGGAGAGCGGATCTCAGGCAACCTGGATGCTCCTGAGGGCGGCTTCGATGC
CATCCTGCAGACAGCTGTGTGCACGAGGGACATTGGCTGGCGCCCCGACAGCACCCACCTGCTGGTCTTCTCCAC
CGAGTCAGCCTTCCACTATGAGGCTGATGGCGCCAACGTGCTGGCTGGCATCATGAGCCGCAACGATGAACGGTG
CCACCTGGACACCACGGGCACCTACACCCAGTACAGGACACAGGACTACCCGTCGGTGGCCACCCTGGTGCGCCT
GCTCGCCAAGCACAAATCATCCCCATCTTTGCTGTACCAACTACTCCTATAGCTACTACGAGAAGCTTCACAC
CTATTTCCCTGTCTCCTCACTGGGGGTGCTGCAGGAGGACTCGTCCAACATCGTGGAGCTGCTGGAGGAGGCCTT
CAATCGGATCCGCTCCAACCTGGACATCCGGGCCCTAGACAGCCCCCGAGGCCTTCGGACAGAGGTACCTCCAA
GATGTTCCAGAAGACGAGGACTGGGTCTTTTCATATCCGGCGGGGGGAAGTGGGTATATACCAGGTGCAGCTGCG
GGCCCTTGAGCACGTGGATGGGACGCACGTGTGCCAGCTGCCGGAGGACCAGAAAGGGCAACATCCATCTGAAACC
TTCCTTCTCCGACGGCTCAAGATGGACGCGGGCATCATCTGTGATGTGTGCACCTGCGAGCTGCAAAAAGAGGT
GCGGTCAGCTCGCTGCAGCTTCAACGGAGACTTCGTGTGCGGACAGTGTGTGTGCAGCGAGGGCTGGAGTGGCCA
GACCTGCAACTGCTCCACCGGCTCTCTGAGTGACATTAGCCCTGCCTGCGGGAGGGCGAGGACAAGCCGTGCTC
CGGCCGTGGGGAGTGCCAGTGCGGGCACTGTGTGTGCTACGGCGAAGGCCGCTACGAGGGTCAGTTCTGCGAGTA
TGACAACTTCCAGTGTCCCCGCACTTCCGGGTTCTGTGCAATGACCGAGGACGCTGCTCCATGGGCCAGTGTGT
GTGTGAGCCTGGTTGGACAGGCCCCAAGCTGTGACTGTCCCCCTCAGCAATGCCACCTGCATCGACAGCAATGGGG
CATCTGTAATGGACGTGGCCACTGTGAGTGTGGCCGCTGCCACTGCCACCAGCAGTCGCTCTACACGGACACCAT
CTGCGAGATCACTACTCGCGGATCCACCCGGGCCTCTGCGAGGACCTACGCTCCTGCGTGCAGTGCCAGGCGTG
GGGCACCGGCGAGAAGAAGGGCGCACGTGTGAGGAATGCAACTTCAAGGTCAAGATGGTGGACGAGCTTAAGAG
AGCCGAGGAGGTGGTGGTGCCTCTCTCCGGACGAGGATGACGACTGCACCTACAGCTACACCATGGAAGG
TGACGGCGCCCCCTGGGCCCAACAGCACTGTCTGGTGCACAAAGAAGGACTGCCCTCCGGGCTCCTTCTGGTG
GCTCATCCCCCTGCTCCTCCTCCTCCTGCGCTCCTGCGCCCTGCTACTGCTGCTATGCTGGAAGTACTGTGCCCTG
CTGCAAGGCCTGCCTGGCACTTCTCCCGTGTGCAACCGAGGTACATGGTGGGCTTTAAGGAAGACTACAT
GCTGCGGGGAGAACCTGATGGCCTCTGACCACCTGGACACGCCCATGCTGCGCAGCGGGAACCTCAAGGGCCGTGA
CGTGGTCCGCTGGAAGGTACCAACAACATGCAGCGGCCTGGCTTTGCCACTCATGCCGCCAGCATCAACCCAC
AGAGCTGGTGCCCTACGGGCTGTCTTGCGCCTGGCCCGCCTTTGACCCGAGAACCTGCTGAAGCCTGACACTCG
GGAGTGCGCCCAGCTGCGCCAGGAGGTGGAGGAGAACCTGAACGAGGTCTACAGGCAGATCTCCGGTGTACACAA
GCTCCAGCAGACCAAGTTCCGGCAGCAGCCCAATGCCGGGAAAAAGCAAGACCACACCATTGTGGACACAGTGTCT
GATGGCGCCCCGCTCGGCCAAGCGGCCCTGCTGAAGCTTACAGAGAAGCAGGTGGAACAGAGGGCCTTCCACGA
CCTCAAGGTGGCCCCCGCTACTACACCCTCACTGCAGACCAGGACGCCCGGGCATGGTGGAGTTCCAGGAGGG
CGTGGAGCTGGTGGACGTACGGGTGCCCTCTTTATCCGGCCTGAGGATGACGACGAGAAGCAGCTGCTGGTGGGA
GGCCATCGACGTGCCCGCAGGCACTGCCACCCTCGGCCGCGCCTGGTAAACATCACCATCATCAAGGAGCAAGC
CAGAGACGTGGTGTCTTTGAGCAGCCTGAGTTCTCGGTACGCCGCGGGGACCAGGTGGCCCGCATCCCTGTCTAT
CCGGCGTGTCTGGACGGCGGGAAGTCCCAGGTCTCTACCGCACACAGGATGGCACCGCGCAGGGCAACCGGGA
CTACATCCCCGTGGAGGGTGAGCTGCTGTTCCAGCCTGGGGAGGCCTGGAAAGAGCTGCAGGTGAAGCTCCTGGA
GCTGCAAGAAGTTGACTCCCTCCTGCGGGGCGCCAGGTCCGCCGTTTCCACGTCCAGCTCAGCAACCCCTAAGTT
TGGGGCCACCTGGGCCAGCCCCACTCCACCACCATCATCATCAGGGACCCAGATGAAGTGGACCGGAGCTTCAC
GAGTCAGATGTTGTCATCACAGCCACCCCTCACGGCGACCTGGGCGCCCCGAGAACCCCAATGCTAAGGCCGC

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FIGURE 4964

MAGPRPSPWARLLLLAALISVLSGTLANRCKKAPVKSCTECVRVDKDCAYCTDEMFRDRRCNTQAELLAAGCORE
SIVVMESFQITEETQIDTTLRRSQMSPQGLRVRLRPGEERHFELEVFEPLSPVDLYILMDFSNSMSDDLNLK
KMGQNLARVLSQLTSDYTIGFGKFVDKVSVPQTDMRPEKLKEPWPNSDPPFSFKNVISLTEDVDEFNRNKLQGERI
SGNLDAPEGGFDAILQTAVCTRDIGWRPDSTHLLVFSTESAFHYEADGANVLGIMSRNDERCHLDTTGTYTQYR
TQDYPSVPTLVRLAKHNIIPIFAVTNYSYSYIEKLHTYFPVSSLGVLQEDSSNIVELLEAFNRIRSNLDIRAL
DSPRGLRTEVTSKMFQKTRTGSFHIRRGEVGIYQVQLRALEHVDGTHVCQLPEDQKGNHILKPSFSDGLKMDAGI
ICDVCTCELQKEVRSARCSFNDFVCGQCVCSEGSQTCNCSTGSLSDIQPCLREGEDKPCSGRGECQCGHCVC
YGEGRYEGQFCEYDNFQCPRTSGFLCNDGRGCSMGQCVCCEPGWTGPSCDCPLSNATCIDSNGGICNRRGHCECGR
CHCHQQSLYTDTICEINYSIAIHPLCEDLRSCVQCQAWGTGEKKGRTCEEENFKVKMVDDELKRAEEVVVRCSEFRD
EDDDCTYSYTMEGDGAPGPNSTVLVHKKKDCPPGSGFWWLIPLLLLLLPLALLLLLCWKYCACCKACLALLPCCN
RGHMVGFKEDHYMLRENLMASDHLDTPLRLSGNLKGRDVVRWKVTNNMQRPGFATHAASINPTLVYPYGLSLRLA
RLCTENLLKPDTRCAQLRQEVEENLNEVYRQISGVHKLQQTFRQQPNAGKKQDHTIVDVTVLMAPRSAPKALLK
LTEKQVEQRAFHDLKVAPGYITLADQDARGMVEFQEGVELVDVRVPLFIRPEDDDEKQLLVEAIDVPAGTATLG
RRLVNITIIKEQARDVVSFEQPEFSVSRGDQVARIPVIRRVLDGGKSQVSYRTQDGTAGNRDYIPVEGELLFQP
GEAWKELQVKLLELQEVDSLLRGRQVRRFHVQLSNPKFGAHLGQPHSTTIIIRDPDELDRSFTSQMLSSQPPPHG
DLGAPQNPNAKAAGSRKIHFNWLPFSGKPMGYRVKYWIQGDSESEAHLLDSKVPVELTNLYPYCDYEMKVCAYG
AQGEGPYSSLVSCRTHQEVSEPGRALFNVVSSVTQLSWAEPAETNGEITAYEVCYGLVNDNRPIGPMKKVLV
DNPKNRMILLIENLRESQPYRYTVKARNGAGWGPEREAIINLATQPKRPMSEIPIIPDIPIVDAQSGEDYDSFLMYS
DDVLRSPSGSQRPVSDDTGCGWKFEP LLGEELDLRRVTWRLLPELIPRLSASSGRSSDAEAPTAPRTTAARAGR
AAAVPRSATPGPPGEHLVNGRMDFAFPGSTNSLHRMTTTSAAAYGTHLSPHVPHRVLSTSSTLTRDYNLSLTRSEH
SHSTTLPRDYSTLTSVSSHDSRLTAGVPDTPTRLVFSALGPTSLRVSWQEPRCERPLQGYSEYQLLNGGELHRL
NIPNPAQTSVVVEDLLPNHSYVFRVRAQSQEGWGREGREGVITTESQVHPQSPLCPLPGSAFTLSTPSAPGPLVFT
ALSPDSLQLSWERPRRPNGDIVGYLVTCEMAQGGGPATAFRVDGDSPE SRLTPVGLSENVYPYKFKVQARTTEGFG
PEREGIIITIESQDGGPFPQLGSRAGLFQHPQLQSEYSSITTTHTSATPEPFLVDGLTLGAQHLEAGGSLTRHVTQEF
VSRTLTTSGLTSTHMDQQFFQT

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FIGURE 4965A

CAAGGGGCCAGGACCCTGAGTTTTATTGGGCCTTGACTAATGTGCCTCCTCATCTGTGTCTCACCCCTCATTGTG
GACTTAGGTTTCAGGTATCTCAGAGGCAGACCCACAGGCTCTGCTCCAGGCCATGAAGGACCTGGACGGCATGGA
TGCTGATATCTTAGGTCTGAAGAAATCTAATTCAGCCCCCTAGCAAAAAAGCTGCAAAGGACCCCTGGGAAAGGAGA
GCTGCCCAACCAACCCCAAGCCTGCAGGGGGTGCCATTCCCAACCAAGAAGTCACTTCCGTCTCCAGCAGCTCTGG
GCATCAGAACAGGAGGTTTTCTCTGAAGACTTGGAAGACCCATTGAGAGGACTTCTCTCTATGATGAAGGAGG
AATCACCAGCAGCCGCTGTGACACAGAGTAAAAACAGCTTCTGACAAGAGCCCCAGCACAGTGAGAGATCAAGG
TCCCTCTATTCTCTAACTCCTGGGGACACCCCATCCGAAAAAAGAAGAATTGTTGTTTTGATGATGGGGATGA
CATCATGGCCACCTTGGGGTTTGAGACAGCCCCAAAGCAGAGAAGAGGCAGATAGGAGACCAGGAAGGGCCTCG
CCCTGCTCGCTCCACGCTGGATGAGCTGCTGGGTGCGAGGCATGGCCACCAAACTCCTGGCCCGCCGGGCACCCGG
GGAGCACAGGGAGTTCAAGCTAGACAAGAGTACCAGAGGCCACAGGACAGTGAAGATATGTGGGGTGACGAGGA
CTTACCTTTGGAGCCTATCAGCCCCACTGTGGTCTCTCTGAGGGCCGGCAGTCCCGCCGGCAGTCTGTCTAGTAG
GTTCTTCGACAGCAGTGGCGCAGACCCCAAGGGAGAACCAGGCTCCAAACAGAGCCCTCCAATGGCTTCCAGCCC
CATCCAGCCCAGGAAGGGAGGAGCTGACTGGTTGGGCCTCAAGGACGAGGACTTGGACCTGTTCCCTGCCTCACC
CACCAGAGAGGCCCATCGGGAAAAGTTCAGTGCTGTACGCCCCCTCAGTGCCTCCTCCTGCGAGCCAGCACTCCAC
GCCAGCTGGGCTGCCCCCTCCAGGGCAAGGCCACCAACTGAAGGTGCAGGGTCCCCTGCCAAAGCCAGCCAGGC
TTCCAAGCTGCGAGCCTCCAAGGAGGAGAAAAGAGGACTGGCTGAGCCATGCCCTGTCTCGGAAGAAGTCCCAAGG
CCTGGCCAGAGAGCAGCATGCTGGGACCTCTGAGGGCCTGCATTTGGCGGGGACAGCGGGCCATCCCCCTTCTGG
CAGCCTGACCTGGGCCTTCTGTACCTTACCTTGAACGCTGCCTTTCTCAGCCAACCTCTCACCAGCACACAA
GGGCTTGAGCACGAGCTGCTGGAGGGAGTTCTGGAACAACTGCACGAGAAAGACCGTGTGTCTCAGGCCTGGTGTCT
TCGGGGTCCCCGTGACTCAGAACCATGCCGCTCAGCACTCCCTACAGGTTCCCCAAAGAGGGGAACAGCCCTT
GGAGACCTCTCAGCCACTGAGCCTGCCACGTGTTTCCCGAGCACCCAGAAACCCACAGAGCCTTCCGTGCCCGTC
CAGCCCCTGCTCCAGAGTCCCTGGCCCGGAGCCTGCTGCCGAGCACAGAATACCAGAAGCAGCTCCTGGCAGCA
CAGGTGCAACTTCAGTGACGCCCCGCTGAGCTCCAGGCCGAGCTGCTGCATAGCCAGGCCCGGCTGGCAGAGCTG
GAGGCCCAGGTGCGGAAGCTGGAGCTAGAACGGGCCCAGCATGAGCTGCTGCTGGGGAGTCTGCAGCAGCAGCAC
CAGGCAGACCTGGAGCTCATCGAGAGTGACACAGAAGCCGCATCAAGGTGCTAGAAACATCGTACCAGCAACGG
GAGGAGCGGCTCCGGAGAGAGAACGAAGAGCTGTACGCTCGGTATCTGTGCGAGTGCCAGGAGGCCGAACAGGCC
CGTGCTGAGCTTACGGCCCAGCACAGCGGCGCTTGGCGGCCATAGCGCAGGAGAAAGGACCAGGAAATGGAGCGG
CTCCGGGAGCTGCAGCGGGCGTCCATCCTAGACATGCGCAGAGACCAGGAGCAGCTGCAGCGGCTAAAGCTG
CTGAAGGACCGAGAGGTGATGCGGCCACCAAGTCCACCTCCCACACACGGTCCCTGAATAGCATCATCCACCAG
ATGGAGAAGTTCTCCAGCAGCCTGCACGAGTTGTCTCCCGCGTGGAGGCCTCGCACCTCACCACCTCCCAGGAG
CGGGAGCTGGGGATCCGGCAGCGTGACGAGCAGCTGCGGGGAGCGGCTGGGCCAGCAGCAGCGGGACATGGAGGA
GGAGCGGAGCCGGCAACAGGAGTTCATCGGGAAGATGGAGGCACGGCTGAATGAGCAGAGCCGGCTGCTGGAGCA
GGAACGCTGGCGGGTGACTGCCGAGCAGTCCAAGCGGAGTCCATGCAGCGCGCCTAGAGGAGCAAAAGGAGGT
CACGGCCCAGCAGATGGCCATGGAAAGGGCGGAGCTGGAACGGGCCAAGAGCGCCTTGCTGGAGGAGCAGAAGTC
TGTCATGCTCAAGTGCGGGGAGGAGCGGCGGCGCTGGCTGCCGAGTGGGCGGAGTTCTCCGCGCAGCAAAAGCT
GAGAGCAGGCTGAGCTGAAGATCAGGGCCAGCGAGCTCCGGGCCGAGGAGAAGCAGCTGGCAGCGGAGAGAGCAG
CCCTGGAGCAGGAGCGGCAGGAGCTGCGGCTGGAGAAGGAGAGGATCAACGCCACCGCCCTGCGTGTCAAGCTCC
GCGCCGAGGAGGTGGAGAGCATGAGCAAGGTGGCCTCCGAGAAGTACGAGGAGGGGAGCGGGCATTGCGCGAGG
CCCAGCAGGTGCAGGCAGAGCAGCAGGCCCCGTTGAGGCGGTGCAGCAACAGCAGGAGCGGCTGCGGAAGCAGG
AGCAGCACATGCACCAGGAGCATCTGAGTCTGGCCAGCAGAGGCTGCAACTGGACCGCGCACGACAGGACCTGC
CCTCTAGCCTCGTGGGTCTGTTCCCCAGGGCCCCAGGGCCCTGCAGCCTCCAGCCAGAGTGCCCTCATGCCTCCTG
CTCCCACCAACCGTTGGTGCAGCCAGCCGCCAACTGGCCTGGACCCAGCCCTTGCACCTCCATGCCAGGCTGG
CACTGCTGAGGCACATGGCAGAGCAGCACCTGCGGTCTGCGGTGGCACCTGGCAGCTGGACCACAGCCAGGAGAA
GGGTACTATTAGCCCTGCTTCAAACATGCAGAACTGAGGCCCGGGGAGATTAAATAACCTGCCTGAAATGACAC
CGTCTTGGGCCCGGCACACCCCCCTGGGGCCGATGCCAACAGTGACATCGACTTGAGCAACCTGGAGCGGCT
GGAGAAGTACCGGAGCTTCGACCGCTACCGGCGCCGAGCAGAGCAGGAGGCGCAGGCCCCGCACTGGTGGCGGAC
CTACCAGAGTATTTGCGGGAGAAGACAGATCCCAAAGAGAAGATTGATATTGGGCTGCCTCCACCCAAAGTCTC
CCGGACCCAACAGCTACTGGAACGGAAACAGGCCATCCAGGAGCTTCGGGCCAATGTGGAAGAGGAGCGGGCTGC

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FIGURE 4965B

CCGCCTCCGCACAGTGTCCCGCTGGATGCCGTGCGGGCCGAGTGGGAGAGGACCTGTGGCCCCCTACCACAAGCAG
CGTCTGGCTGAGTATTACGGCCTCTACCGAGACCTGTTCCACGGTGCCACCTTTGTGCCCCGAGTCCCCCTGCAC
GTGGCCTACGCTGTGGGTGAGGATGACCTGATGCCTGTGTACTGTGGCAATGAGGTGACTCCAACCGAGGCTGCC
CAAGCGCCAGAGGTGACCTATGAGGCAGAAGAGGGCTCCTTGTGGACGTTGCTACTACTAGCTTGGATGGGCAC
CTGCTGGAGCCAGATGCTGAGTACCTCCACTGGCTGCTAACCAACATCCCGGGTAACCGGGTGGCTGAAGGACAG
GTGACGTGTCCCTACCTCCCCCCTTCCCTGCCCCGAGGCTCCGGCATCCACCGTCTTGCCTTCCTGCTCTTCAAG
CAGGACCAGCCGATTGACTTCTCTGAGGACGCACGCCCCCTACCCCTGCTATCAGCTGGCCCAGCGGACCTTCCGC
ACTTTTGATTTCTACAAGAAACACCAAGAAACCATGACTCCAGCCGGCTTGTCTTCTTCCAGTGCCGCTGGGAT
GACTCCGTCACCTACATCTTCCACCAGCTTCTGGACATGCGGGAGCCGGTGTGTTGAGTTTCGTGCGGCCGC

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FIGURE 4966

MAPKTKKGCKVTLPEKPVKLASHTRDTTGVSQMFPSSKARTKSLLGDDVFSTMAGLEEADAENVSGISEADPQALL
QAMKDLDGMDADILGLKKSNSAPSKKAAKDPGKGELPNHPKPAGGAIPTKKSLPSPSSSGHQNRFFSSEDLPL
RGLLSYDEGGITKQPPVTQSKTASDKSPSTVRDQGPSIPLTPGDTPIRKKEELLFDDGDDIMATLGFGDSPKAEK
RQIGDQEGPRPARSTLDELLGRGMATKLLARPGTGEHREFKLDKKYQRPQDSEDMWGDEDFTFGAYQPTVVSSEG
RQSRQSVSRFFADSGADPKGEPGSKQSPPMASSPIQPRKGGADWLGLKDEDLDLFPASPTREAHRESSVPVTPS
VPPPASQHSTPAGLPPSRAPPTGAGSPAKASQASKLRASKEEKEDWLSHALSRKKSQGLAREQHAGTSEGLHL
AGTAGHPPSGSQPLTSTQGLEHAAAGSSGTTARERPCVRPGVSGSPVTQNHAASALPTGSPKRGTAPGDLSTATE
PATCFPSTQKPTEPSVPVQPLLPESLARSLLPSTEYQKQLLAAQVQLQCSPAELQAELLHSQARLAELEAQVRGS
GAVGAGGRVATGGDTESGWKLPQEGGRAVGTGQRGVQPPPLPGCWPSCCLPGAEAGARTGPA

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FIGURE 4967

CCCGAGCATCCC GCGCCGACGGGGCTGTGCCGGAGCAGCTGTGCAGAGCTGCAGGCGCGCGTCAATGGCTGCTTTG
AGACAGCCCCAGGTCGCGGAGCTGCTGGCCGAGGCCCCGGCGAGCCTTCCGGGAGGAGTTCGGGGCCGAGCCCGAG
CTGGCCGTGTGTCAGCGCCGGGCGCGTCAACCTCATCGGGGAACACACGGACTACAACCAGGGCCTGGTGCTGCCT
ATGGCTCTGGAGCTCATGACGGTGCTGGTGGGCAGCCCCCGCAAGGATGGGCTGGTGCTCTCCTCACCACCTCT
GAGGGTGCCGATGAGCCCCAGCGGCTGCAGTTTCCACTGCCCCACAGCCCAGCGCTCGCTGGAGCCTGGGACTCCT
CGGTGGGCCAACTATGTCAAGGGAGTGATTCACTACTACCCAGCTGCCCCCTCCCTGGCTTCAGTGCAGTGGTG
GTCAGCTCAGTGCCCCGTTGGGGGGTGGCCTGTCCAGCTCAGCATCCTTGGAAGTGGCCACGTACACCTTCCTCCAG
CAGCTCTGTCCAGACTCGGGCACAATAGCTGCCCGCGCCAGGTGTGTGTCAGCAGGCCGAGCACAGCTTCGCAGGG
ATGCCCTGTGGCATCATGGACCAGTTCATCTCACTTATGGGACAGAAAGGCCACGCGCTGCTCATTGACTGCAGG
TCCTTGAGACCAGCCTGGTGCCACTCTCGGACCCCAAGCTGGCCGTGCTCATCACCAACTCTAATGTCCGCCAC
TCCCTGGCCTCCAGCGAGTACCCTGTGCGGCGGCGCCAATGTGAAGAAGTGGCCCGGGCGCTGGGCAAGGAAAGC
CTCCGGGAGGTACAACTGGAAGAGCTAGAGGCTGCCAGGGACCTGGTGAGCAAAGAGGGCTTCCGGCGGGCCCCGG
CACGTGGTGGGGGAGATTGCGCGCACGGCCAGGCAGCGGCCGCCCTGAGACGTGGCGACTACAGAGCCTTTGGC
CGCCTCATGGTGGAGAGCCACCGCTCACTCAGAGACGACTATGAGGTGAGCTGCCCAGAGCTGGACCAGCTGGTG
GAGGCTGCGCTTGCTGTGCCTGGGGTTTATGGCAGCCGCATGACGGGCGGTGGCTTCGGTGGCTGCACGGTGACA
CTGCTGGAGGCCTCCGCTGCTCCCCACGCCATGCGGCACATCCAGGAGCACTACGGCGGGACTGCCACCTTCTAC
CTCTCTCAAGCAGCCGATGGAGCCAAGGTGCTGTGCTTGTAGAGGCACCCCCAGGACAGCACACGGTGAGGGTGCG
GGCCTGCAGGCCAGTCCCACGGCTCTGTGCCCCGTGCCATCTTCCATATCCGGGTGCTCAATAAACTTGTGCCT
CCAATGTGGTA

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FIGURE 4968

MAALRQPQVAELLAEARRAFREFGAEP ELAVSAPGRVNLIGEHTDYNQGLVLPMALELMTVLVGSPRKDGLVSL
LTTSEGADEPQRLQFPLPTAQRSLEPGTTPRWANYVKGVIQYYPAAPLPGFSAVVVSSVPLGGGLSSSASLEVATY
TFLQQLCPDSGTIAARAQVCQQA EHSFAGMPCGIMDQFISLMGQKGHALLIDCRSLETSLVPLSDPKLAVLITNS
NVRHSLASSEYPVRRRQCEEVARALGKESLREVQLEELEAARDLVSKEGFRRARHVVG EIRRTAQAAAALRRGDY
RAFGRLMVESHRS LRDDYEVSCPELDQLVEAALAVPGVYGSMTGGGFGGCTVTILLEASAAPHAMRHIQEHYGGT
ATFYLSQAADGAKVLCL

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FIGURE 4969

GGTCGTTTCGTTGGGCGGTGCTGGTTTTTCGCTCGTCGACTGCGGCTCTTCCTCGGGCAGCGGAAGCGGCGCGGGCG
GTCGGAGAAGTGGCCTAAAACCTTCGGCGTTGGGTGAAAGAAAATGGCCCGAACCAAGCAGACTGCTCGTAAGTCC
ACCGGTGGGAAAGCCCCCGCAAACAGCTGGCCACGAAAGCCGCCAGGAAAAGCGCTCCCTCTACCGGCGGGGTG
AAGAAGCCTCATCGCTACAGGCCCGGGACCGTGGCGCTTCGAGAGATTCTGCTTATCAGAAGTCGACCGAGCTG
CTCATCCGGAAGCTGCCCTTCCAGAGGTTGGTGAGGGAGATCGCGCAGGATTTCAAAACCGACCTGAGGTTTCAG
AGCGCAGCCATCGGTGCGCTGCAGGAGGCTAGCGAAGCGTACCTGGTGGGTCTGTTTGAAGATACCAACCTGTGT
GCCATCCACGCTAAGAGAGTCACCATCATGCCCAAAGACATCCAGTTGGCTCGCCGATACGGGGAGAGAGAGCT
TAAGTGAAGGCAGTTTTTATGGCGTTTTGTAGTAAATTCGTAAAATACTTTGGTTTAATTTGTGACTTTTTTTG
TAAGAAATTGTTTATAATATGTTGCATTTGTACTTAAGTCATTCCATCTTCACTCAGGATGAATGCGAAAAGTG
ACTGTTTACAGACCTCAGTGATGTGAGCACTGTTGCTCAGGAGTGACAAGTTGCTAATATGCAGAAGGGATGGGT
GATACTTCTTGCTTCTCATGATGCATGTTTCTGTATGTTAATGACTTGTGGGTAGCTATTAAGGTACTAGAGTT
GATAAATGTGTACAGGGTCCTTTTGCAATAAAACTGGTTATGACTTGATCCAAGTGTTTAACAATTGGGGCTGTT
AAGTCTGACCATACATCAGTGTGATAGAATGTGGGCTTTTTCAAGGGTGAAGATACAAGTCTTAACCACAGTGTA
ACTTACAGTTTCCTTTAAAAAAGTAAACCTGGCAGCTATAGAATACACTATGTGCATTTATAATAGCT
ATTTTATATATTGTAGTATCAACATTTTTAAATTAAATGTTTTACATTACAAAGTGGTGGGGAGTCTTGTCATTA
AGGTGTGTGTAATTTAGAGTCCAGTTGGTTTTCTTCTGACTGCACTTGTTCTCATAGTAGTAAATGCTATGCGC
ATTTATACCTTGATAAGTCCTCATTCTACCACATGTTAACCCTCTAGCTGATAATGCAAACACTAACTGGGGGA
TTTTATTTATAAGGGCTCTAGAAAAACGAGTTATTACACCAGCATCATCTTAACTAACATTCTGAACTAGTTA
GTGCAGCTTTTCATTGTTGTGTGGTTGGTCTCATAACTAGGTTGAGTTTTTCTCCTCTGCTGAGGAAACAGTA
CCGAAGTTCTTTTCTTGTTGGCATTGTATTATAAAAACTTGGTGTGGGGGAGGAGCACAAAACCTCCAGCCACT
GAACCTCTGCCAATTAAGATGGTGTGGGTTAGGTTACATCTGGTTACTGTCTGGGAAAATCATTTTTTATAGAG
ATGGCCTTCCAAGTGGTTTTAAATTTACTGAAGTTTTTAGGTCAATTATGTATGTTGACTAAATTTACAAATAA
ACTTGTTTTATCC

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FIGURE 4970

MARTKQTARKSTGGKAPRKQLATKAARKSAPSTGGVKKPHRYRPGTVALREIRRYQKSTELLIRKLPFQRLVREI
AQDFKTDLRFQSAAIGALQEASEAYLVGLFEDTNLCAIHAKRVTIMPKDIQLARRIRGERA

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FIGURE 4971A

GAAGAGGCAGGAAGACAAGACCATGTCGAAGGGCCCCGGGCCCCGGCGGCTCCGCAGCTTCTCGGCGCCCCCGGC
CGCTACCGCTCAGGTGCTGCAGGCACAGCCCCGAGAAACCGCAGCACTACACGTACCTGAAAGAATTCCGCACAGA
GCAGTGCCCACTCTTTGTGCAACACAAATGCACGCAGCATCGGCCCTACACCTGCTTCCACTGGCACTTCGTGAA
CCAGCGGCGCGCGCGGTCCATCCGCCGTGCGGACGGCACCTTCAATTACAGCCCTGACGTCTACTGCACCAAGTA
CGACGAGGCTACAGGCCTTGCCCGGAGGGCGACGAGTGCCCATTCCTGCACAGAACCACAGGGGACACTGAGCG
CAGGTACCACCTTCGTTACTACAAAACCTGGAATCTGCATCCACGAGACAGACTCGAAAGGCAACTGCACCAAAAA
CGGCCTGCACTGCGCTTTTGGCCACGGGCCCCATGACCTCCGCTCCCCTGTCTACGACATCAGGGAGCTTCAGGC
CATGGAGGCCTTGCAAGATGGCCAGACCACGGTAGAGGGGAGCATAGAGGGCCAGTCCGCTGGGGCTGCGAGCCA
TGCCATGATAGAAAAGATCCTCAGCGAGGAGCCTCGGTGGCAAGAGACTGCTTATGTGCTGGGGAACTATAAGAC
GGAGCCTTGCAAGAAGCCCCCGGGCTGTGCCGCCAAGGCTATGCCTGTCCCTACTACCACAACAGCAAGGACCG
GCGGCGGAGCCCCCGGAAGCACAAATACAGGTGCTCTCCATGTCCAAACGTCAAGCACGGGGATGAGTGGGGAGA
CCCTGGCAAGTGTGAGAACGGAGACGCCTGCCAGTACTGCCACACCCGCACCGAGCAGCAGTTCACCCCCGAGAT
CTACAAGTCCACCAAGTGAACGACATGCAGCAGTCCGGGAGCTGTCCCCGAGGACCCCTTCTGCGCCTTTGCCCA
CGTAGAACAGCCACCCCTGAGTGACGACCTGCAGCCTTCCTCAGCTGTGTCCAGCCCCACCCAGCCAGGTCTGT
CCTGTACATGCCATCTGCCGCCGAGACTCGGTGCCTGTGAGCCCCCTCCAGCCCGCATGCCCTGACCTCAGTGC
CCTCCTCTGTAGAAAACAGCAGCCTAGGCAGCCCCGTCTAACCTCTGCGGCTCCXCCACCGGGCTCCATCAGGAAGC
CCCCAACCTGGAGGGCATCGTCTTCCCTGGGGAGTCTGGCCTGGCCCCCTGGCAGCTATAAGAAGGCTCCCGGCT
TCGAGAGGGAAGACCAGGTGGGAGCCGAGTACCTGAAAAATTTCAAAATGCCAGGCCAAATTAAGAACCCCACTCAT
TAGAGCCAGGAGTCAAGAGCAGCCTCTGCTTACGCCAAACAGGACATGCTGGGCATCCTCCCCGCAGGCAGCC
CCCTGACCTCAAGCATCTCTTCTAGTATCACCTCCAGCCTGGCAGCTACCCCCCTAGCCCACTGGGCACCAGCA
GCGTCCCCGGCATGAATGCAAACGCTCTGCCCTTCTACCCCCACAGCGACACGGTAGAGTCAGTCATAGAGTCTG
CTTTGGATGACCTGGACCTGAATGAGTTTGGCGTGGCCGCCCTGGAGAAGACTTTTGATAACAGCACAGTGGCCCC
ACCCAGGAAGCATCACCATCGGCGGCAGCTTGGCTGCAGAGCTCTGCACCCGTGAACATCCCCGGCTCCTTGGGCA
GCTCTGCCCTCCTTCCACTCAGCATCCCCGTCCCTCAGCCTCTCCTCGCATTTCTTGCAGCAGCCCCAGG
GCCACCTGAGTCAGTCGGAAAACACATTTTTGGGAACCTCAGCATCACATGGATCTTTGGGTCTGAACGGGATGA
ACAGCAGCATCTGGGAGCATTTTGCTCTGGAAGCTTCTCCCCGGGCACTTCCCCCGCTTTCTATCAGGGCCAG
GGGCTGCCGAGCTGGCCCCGACTTCCGGCAAGAGCTGGATGAAGCCAACAGCACCATCAAGCAGTGGGAGGAGTCTCT
GGAAGCAGGCCAAGCAGGCTTGTGATGCCTGGAAGAAAGAGGCGGAGGAGGCTGGTGAGCGGGCCAGTGCGGCGG
GCGCCGAGTGCGAGCTGGCCCCGGGAGCAGCGGGATGCACTGGAGGTGAGGTGAAGAAGCTCCAGGAGGAGCTGG
AGCGGCTACACGCGGGGCTGAGCCCCAGGCCCTGCCCGCTTCTCCGACCTGGAGGCGCTCTCACTCTCCACCC
TCTACTCCCTCCAGAAACAACCTGCGGGCCACCTGGAACAAGTGGACAAGGCCGTGTTCCACATGCAGTCGGTGA
AATGCCTTAAGTGTGAGGAACAGAAGCGGGCAGTGTGCTGCCGTGCCAACACGCTGCGCTGTGTGAGCTCTGCGCTG
AGGGCAGCGAGTGCCCCATCTGCCAGCCTGGCCGGGCCCCACACCCTCCAGTCTGTGACCCTGCAGGCCTGGCCCAG
CCTGGCCCAGATCTTCTCACCTAGGACTTTTTTAAAGTATATATATATATATGAATATATATATATATGTGTATGT
ATGTATGTATATGTATATGATTATGTATATGTATACATTTCCGTATGTATGTATATGTATACATTTCCGTATGTG
TGCAGGTATGCGTGGTGGTGTGGACAGTGTCTGTGTGTATATCTGTACATAGATATAGACACACACTTTAAAGA
CTTACCAAGCACTTTTTTAAAGAAGAACTATTTTGCAGTCTCTCCCTACCCACTCCCTGCCCTTCCCACTGCAG
AGATGACATCCCTCTTCTCCCACTGGCCTTTTGGCAGAGAATCTGGTTCTGTCTCTTTTTTAAATGTAGGAACCTA
ACTATTTTTAACTTCTTCTGGGGCCTGAGCAGGGAAGGGTGGGACTGGAAGGCCTAAGGGGAAGGGAGAAGCC
CTCAGGGCAGGCCCTGCTCCCCCTACCTCCTTGCCAGGGCAAGGGTGGAGTGTGGAAGACGTGGGTCCCCCAGAG
CAGGCCTGGCCCCCAGCTXGXTGAGGGCCTCAGGGAGGCCGAGGGGGAGTGTGGGGGTCTCAGCTGGCTTAGC
TCCTAAGTTTACCAAATGTTAATTTAGTCTTGGGGAGAACAGCAAGGGCTGGAGGCCAGTGTGCAGGGCCAGCC
CCACTCCTGACACCTGGGCCCTTGAAGCTCCTTGAGGGGCAAGGCCCAGGAGTTCCAGCCCTCAGGTTCTCTGAGG
GTCCACCCTCAGTCTTCCCCCGCGGCCCTCCCCGACTCCCCACAAGAGCCTCCCTGGCCCCCAGGGCCGCT
ACCAGGCTGGTACTCATTCTATGACCACCGCCCCCAACCAGCTGCCCCCAGCTCTCCCTGCCCCCTCCCTCTCT
GGCAGCTAGCAGGGCAATTGGCGGGGAGGAGTGGGACTGAGGACTGAGGACCAAGGGGGCCAGGGCCCTGCCCT
CCTACCCGGAGGGGCTCCGTTTGATTCTTGGTGTCTCTGAGTGCAGCTGGTGTCCCGCCCTGTCTGGGCGG
ACGCCTGTGTGCGTGTGTGTGCTGTCCAGTGTATATTGTGTCTTAGCTTCCATTTTAAAAATTGTCTGTAC

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FIGURE 4971B

AGAGAGAGATGCAGCAGGGGCGGGAGGGCAGAGTGGGCGGAGGGGAGCAGCCGCACCCCCAGCACCGGGTGTCTG
CGGTAGGAACAAGAGGGCTGAGAGGGTCTGGTCCTGGCCCAGGCTCCCCCTTGGGCTCAGCACGAAAGGGCTTTC
AATGAATTAAGTGAAGAACTTTTTCCTTTTTTACAAAAATGCAAAAATCAACAAAGCTCCAAACCTATTGGAAATA
AAATATGAACCTTGC

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FIGURE 4972

MSKGP GPGGSAASSAPPAATAQVLQAQPEKPOHYTYLKEFRTEQCPLFVQHKCTQHRPYTCFHHWFVNQRRRSI
RRRDGTFNYS PDVYCTKYDEATGLCPEGDECPFLHRTTGD TERRYHLRYK TGICIHETDSKGNCTKNGLHCAFA
HGPHDLRSPVYDIRELQAMEALQNGQTTVEGSIEGQSAGAASHAMIEKILSEEPRWQETAYVLGNYKTEPCKKPP
RLCRQGYACPYHNSKDRRRSPRKHKYRSSPCPNVKHGD EWGDPGKCENG DACQYCHTRTEQQFHPEIYKSTCN
DMQQSGSCPRGPFCAFAHVEQPPLSDDLQFSSAVSSPTQPGPVLYMP SAAGDSVPVSPSSPHAPDLSALLCRNSS
LGSPSNLCGSXTGLHQEAPKPGGHRLEPWGVWPGPWQL

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FIGURE 4973

TGCGTTTTGAGTCTCGGGACCCCTGTTGGAGAGACTATGCGCTCAACAAGAATCACTCGGAGGGCGGCGGAGTG
ATCGTCAATAACACCGAGAGCATCCTAATGTCTATGATCACGTGGAACACATTCAATGACATGAAGAACGTG
CCAGAAGCCTTCAAAGGGACCAAGAAAGGCACTGTCTACCTTACCCCTTACCGGGTCATCTTTCTGTCCAAGGGC
AAGGATGCCATGCAGTCCTTCATGATGCCATTTTATCTCATGAAAGACTGTGAGATCAAGCAGCCGTATTTGGT
GCAAACCTACATCAAGGGAACAGTGAAGGCGGAAGCGGGAGGTGGCTGGGAAGGCTCTGCTTCTACAAGTTGACT
TTCACGGCAGGGGGCGCCATTGAGTTCGGACAGCGGATGCTCCAGGTGGCATCTCAAGCCTCCAGAGGTGAAGTC
CCCAGTGGAGCCTATGGCTACTCTTACATGCCCAGCGGGGCTATGTCTATCCCCCGCCAGTCGCCAATGGAATG
TACCCCTGCCCTCCTGGCTACCCCTATCCACCGCCCCACCTGAGTTCTATCCAGGACCCCCATGATGGACGGG
GCCATGGGATACGTGCAGCCCCACCACCGCCCTACCTGGGCCCATGGAACCTCCGGTCAGCGCCCCGATGTC
CCCTCCACTCCTGCAGCCGAAGCCAAGGCCGCGAGAAGCAGCGCCAGCGCTATTACAACCCAGGCAATCCTCAC
AACGTCTACATGCCCACGAGCCAGCCGCCGCCACCTCCCTACTACCCACCGGAAGATAAGAAGACCCAGTAGGCC
CTCCTGCCTCCCTGCCTCCCACCCCTCATCTCTCTACCCCTACCCCTCCCATCGGGGCTGTGCTGGGGCTTGGGGAG
GGGAGGGGGCGCCTTGTTCTCCCTCCAGGTCTGATCATAAACAATTACCAGGAAC TAGCATTGTGGGACATTAGG
GCCCCGGCCTCGGGAGAGGTGCCGCCAGCTTCCCATGCCAGCCCGGAGCCCACAGTGCTGCCAGCGTACCTC
CCTCACCGTCTGGGGCTCTTCTGGGAGCACGGAGCATCCCCTGTTCTGTTTCACTCTCAGCTTCTCCCCCTCGAA
GGGACTCTCTGGCCACCTCCTCCACCGCAGTCCAGCTCCCTCAGTCTGGCACCCACTGCTACACTCAGCCTCATG
AGCCACTTCAGACCAGCCAGAAGGAGCTTCTGACTGGAACCAGAGAATGCATGTCTGTCCACTTGGTGGCTGCT
GGGTGGGGCCGGGAACAAGGGCCCCCTGACCCTGTGTGCTGGCCGGGACCTGCCACCAGCCCCCAGCCTGCTTCT
TCCCCTTAAGCTTTGTGCCCTGGATGCGCTAACATTCACTCTTGTGTTGTCCTGGACTGGCCATGAAGTGAGGA
GATGGTTATTTAAAGAGAATTCCCTATTTATTTGACAAAAATCCAGTTAATATATTAATGTGAAATAAACCTG
TTTGACCTCG

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FIGURE 4974

MALNKNHSEGGGVI VNNTESILMSYDHVELTFNDMKNVPEAFKGTKKGTVYLTPYRVIFLSKGKDAMQSFMMPFY
LMKDCEIKQPVFGANYIKGTVKAEAGGGWEGSASYKLITFTAGGAIEFGQRM LQVASQASRGEVPSGAYGYSYMP S
GAYVYPPPVANGMYPCPPGYPPFPFFPEFYPGPPMMDGAMGYVQPPPPYPGPMEPPVSGPDVPSTPAAEAKAAE
AAASAYYNPGNPHNVYMFTSQPPFPFPYPPEDKKTQ

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FIGURE 4975

GGTGC GCAAGGGCACGGACCTCGGAGCTCTCCCCGTTCCCCGCCGCCATGAACGCCGCTCGCACCGGCTACCG
AGTCTTCCTCGCCAACTCCACGGCCGCCTGCACGGAGCTGGCCAAGCGCATCACAGAGCGCCTTGGTGCTGAATT
GGGGAAGTCTGTTGTATATCAAGAGACCAATGGAGAAACAAGAGTTGAAATAAAAGAATTTGTTTCGTGGCCAAGA
TATTTTCATTATACAGACAATACCCAGAGATGTGAATACAGCTGTGATGGAGTTGCTCATCATGGCTTACGCACT
GAAGACTGCCTGTGCCAGGAACATTATTGGGGTTCATCCCCTACTTCCCCCTACAGCAAGCAGAGCAAGATGAGGAA
GAGGGGTTCCATTGTGTGCAAGCTGCTAGCATCCATGCTGGCGAAAGCAGGTTTAACTCACATTATCACTATGGA
TCTTCATCAAAAGGAAATACAAGGCTTTTTTCAGCTTTCTGTGGACAACCTTAGAGCCTCACCTTTCTGTCTTCA
GTATATCCAGGAAGAAATTCCAAATTACAGAAATGCAGTCATTGTAGCTAAGTCTCCTGATGCTGCAAAGAGGGC
CCAGTCCATGCGGAGAGACTGCGTCTGGGTTTGGCCGTCATTACGGGGAAGCTCAGTGCACGGAACCTGGACAT
GGACGATGGTCGTCCTTCCCCGCCTATGGTCAAAAATGCTACTGTGCACCCAGGCCTGGAGTTGCCATTGATGAT
GGCCAAAGAGAAGCCACCATACTGTAGTTGGAGATGTTGGAGGCCGCATCGCAATCATCGTGGATGACATTAT
TGACGATGTGGAGAGTTTTGTTGCTGCCGCGGAGATCCTGAAAGAGAGAGGCGCCTATAAGATCTATGTTATGGC
CACCCACGGCACTCCTGTCTGCAGAGGCCCTCGCCTGATTGAGGAGTCTCCGTAGACGAGGTGGTGGTGACGAA
TACTGTCCCTCATGAGGTTTCAAGCTGCAATGTCCAAGATAAAGACTGTGGATATCAGTTTGATTCTTTCTGA
AGCCATTTCGGAGAATCCACAATGGAGAGTCCATGGCCTACCTTTTCCGAAACATCACTGTGGATGACTAGCTTTTC
ACGAGGGTCTCGACCCTGGACCTCCTGAGGGAAACATGGAAAAAGCAGTGCCATGAGTGATACAGTGTTCCTTG
CAAGGGAGGACTCGAAACAGCCTGGAGTTAGATATCTTCTTTTCCCCGATTGATGGGGAGGAGGGATTAAAGA
GTCAGGAAGAAGACAGAGCTAATGGATAAATATCATAACATGGCCTTACATGTCTGCTGTCATCAGCCCTGTTCC
TTAAAAGTTCTAGCTGCTTTCTTAAAAATAATCTGAAAACTTATTGATACTAAAGAGGAGTTAAAGGCACATAA
AGTCTTAACCTCTATAATGTTTCAATTTAGTTGTTTCAGCTCCAGGGAAATGGAGGTATTGATGTTGAACCTGGTTAG
GGAAGCTGAGCGCCTGTGGCCCTATTACTATCCAGTTGGCCTCTCCCAAATCAACTTCAAGTCTTTTATAGAGAA
TCGTATTTTCTTTTCAAGAAATTGCTATGCCTACAGCCATTGAAAAATGAAGCATTGTTGTTTACATCTTCCAA
GGATGTCAGATTAGAAAAATAGCATCCACCTCTGGGTATCTGAGTGGCTCTGAAGTTGCAAATAAAATAATTTGT
TGT

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FIGURE 4976

MNAARTGYRVFLANSTAACTELAKRITERLGAE LGKSVVYQETNGETRVEIKEFVRGQDIFIIQTIPRDVNTAVM
ELLIMAYALKTACARNIIGVIPYFPYKQSKMRKRSIVCKLLASMLAKAGLTHIITMDLHQKEIQGFFSFPVDN
LRASPFLQYIQEEIPNYRNAVIVAKSPDAAKRAQSYAERLRLGLAVIHGEAQCTELDMDDGRHSPPMVKNATVH
PGLLEPLMMAKEKPPITVVG DVGGRIAIIVDDIIDDVESFVAAAEILKERGAYKIYVMATHGILSAEAPRLIEES
SVDEVVVTNTVPHEVQKLQCPKIKTVDISLILSEAIRRIHNGESMAYLFRNITVDD

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FIGURE 4977A

CGCCTCCCCGCGCCTCGTTCCGCCGCCGCTGTCCGCCGCCGCCGCCGAGACTCGCGCAGAGCAGTTATGGCGGATC
CCGCAGCCCCACGCCCCGAGCTCCCGCTCCAGCCCAGGCCCGGCTCCAGCCCCGAGGCAGTCCCGGCCCCAG
CCGCAGCCCCCGTCCCGGCCGCCGCCGCCGCCCTCGGACTCGGCCTCCGGGCCGTCTCCGGACTCCGGCCCCAGAAG
CCGGCTCGCAGCGCCTGCTGTTTCTCACGACCTGGTGTCCGGCCGTTACCGTGGCTCCGTGCACTTCGGGGCTGG
TGCGCCTCATCCACGGCGAGGACTCGGACTCGGAGGGCGAGGAGGAGGGCCGCGGGAGCTCGGGGGTGTCTCCGAGG
CCGGGGGCGCGGGCCACGAGGAGGGCCGGGCCAGCCCCCTGCGCCGCGGCTACGTGCGCGTCCAGTGGTACCCGG
AGGGCGTCAAGCAGCATGTGAAGGAGACCAAGCTGAAACTAGAGGACCGTTCTGTGGTGCCCCGAGATGTGGTCC
GGCAGATGCGATCCACCGACAGTCAGTGTGGCACGGTGATCGACGTCAACATCGACTGTGCCGTCAAGCTCATCG
GCACCAACTGCATCATCTATCCCGTCAACAGCAAGGACCTGCAGCACATCTGGCCCTTCATGTATGGGGACTACA
TTGCCTATGACTGCTGGCTGGGGAAGGTCTACGACTTGAAGAACCAGATCATCTGAAGCTATCCAACGGCGCCA
GGTGTCTCCATGAACACGGAAGATGGCGCCAAGCTCTACGACGTCTGCCCCGACGTGAGCGACTCGGGTCTCTTCT
TCGATGATTCTATGGCTTCTACCCAGGCCAGGTGCTCATTGGCCCTGCCAAGATCTTCTCCAGCGTCCAGTGGC
TGTCAGGTGTCAAGCCCGTGTCTCAGCACCAAGAGCAAGTTCGAGTGGTGGTGGAAAGAGGTGCAGGTTGTAGAGT
TGAAAGTTACATGGATTACCAAGAGTTTCTGTCCAGGGGGCACGGACAGCGTCAGCCCCCACCCTCTGTATCA
CCCAGGAAAACCTAGGCAGGGTGAAGCGTCTCGGATGCTTTGACCATGCTCAGCGGCAGCTTGGGGAGCGCTGTC
TGTATGTCTTCCAGCCAAGGTAGAGCCAGCCAAGATTGCTTGGGAATGTCCAGAAAAAACTGCGCCCAGGGGG
AGGGCTCTATGGCCAAGAAGGTGAAGCGCTGTGAAGAAGCAGGTTGTGCGGATCATGTATGCTCCCCAGACA
CCCAGTGTTCCTGGGACCATTCATGGAAGACCCAGACAAGAAGGGGGGAATCCAAAACCAAGAGCGAAGCGGAGT
CTGCCAGCCCTGAGGAGACGCCGATGCTCTGCCAGTCCAGTGGAGATGCAGGACGAGGGTGCAGAGGAGCCCCA
CGAGGCAGGAGAGCAGCTGCCCCATTCTGTCTAAAAGAAGGCAGAGATGACAGGCTGCACTCGGCAGAGCAGGA
CGCAGATGATGAGGCTGCTGATGACACGGACGACACCAAGTTCGGTGACCTCCTCTGCCAGCTCCACCACTTCTCTC
CAAGATGGGCAGCGGCACGAGTCGCAAAAAGAGCATCCCCCTGTCCATCAAGAACTTAAAGCGCAAACACAAGAG
GAAGAAGAATAAAATCACTCGAGACTTCAAGCCAGGGGACAGGGTGGCAGTGGAGGTGGTGACCACGATGACCTC
AGCCGACGTGTGCGGAGGATGGCTCCGTGGGAATGCAACATCCGCTCCAACGACCTCTTCCCTGGCACCACCTG
ACAACAACGAGTTCTGCCCTGGAGACTTCGTGGTAGATAAGCGAGTCCAGAGCTGTCCAGACCCCTGCTGTCTACG
GTGTGGTACAGTCTGGGGACCACATCGGCCGTACCTGCATGGTGAAGTGGTTCAAGCTGAGGCCGATGGGGACG
ACGTGGAGCTGATTGGAGAAGAGGAAGATGTAGTGTTCACGACATTGCTGACCACCCCTGACTTTAGGTTCCGTA
CAACTGACATCGTCATCCGCATCGGCAATACTGAGGATGGGGCTCCTCACAAGGAGGATGAGCAGCATCGGTGG
GCCAGGTGGCCCGTGTGGACGTCAGCAGCAAGGTGGAGGTGGTGTGGGCTGACAACCTCAAAGACCATCATCCTGC
CCCAGCACTTGTACAACATAGAGTCTGAGATTGAGGAGTCAGACTACGATTCCGGTAGAAGGCAGCACCAGCGGGC
ATCCTCGGATGAATGGGAAGATGATAGTGACAGCTGGGAGACGGACAATGGGCTGGTGGAGGACGAGCACCACAA
GATAGAGGAGCCCCCATCCACCCCTGGAGCAGCCGGTGGCCCTGAGGACAAGGGAGTGGTATCAGTGAAGAG
GCAGCCACAGCCGTAXCXCTAGGGGGCTGTGGCCATGGCTGCCCCCATGGCCGGGCTGATGGAGAAGGCTGGCAA
GGACGGGCCACCCAAGAGCTTCCGGGAGTTGAAAGAGGCCATCAAGATCCTGGAGAGCCTCAAGAACATGACTGT
GGAGCAGCTGCTGACGGGCTCGCCACCTCTCCGACTGTGGAGCCTGAGAAGCCAACCTCGGGAGAAGAAGTTTCT
GGATGACATCAAGAAGCTACAGGAAAACCTCAAGAAGACCCTGGACAATGTGGCCATTGTAGAGGAGGAGAAGAT
GGAAGCAGTGGCCGACGTAGAGCGCAAGGAGGACAAGCCGAGGGCGAGTCACCTGTGAAGGCTGAGTGGCCAG
CGAAACCCCGGTGCTGTGCCAGCAGTGTGGCGGCAAGCTGGCGTCACCTTCACCAGCGCCAAGGGCGAGGTCTTC
TCCGTACTGGAGTTTGCACCCTCAAATCATTCTTTAAGAAAATTGAGTTCAGCCTCCAGAAGCCAAGAAGTTC
TTCAGCACAGTGGGAAGGAGATGGCGCTGCTGGCTACCTCACTGCCTGAGGGCATCATGGTCAAGACTTTTGAA
GATAGAATGGACCTCTTCTCAGTCTCATCAAGGGCCCCACTCGAACCCCTACGAGGATGGCCTCTACTTGTTC
GACATCCAGCTCCCCAACATCTACCCAGCCGTGCCCCCACTTCTGCTACCTCTCCAATGCAGTGGCCGCTG
AACCCCAACCTGTATGACAATGGGAAGGTGTGTGTCAGCTCCTGGGCACCTGGATTGGAAAGGGGACAGAGAGG
TGGACAAGCAAGTCCAGCCTTCTCCAGGTGCTCATCTCCATCCAAGGTCTGATCCTGGTAAATGAACCATACTAC
AACGAAGCCGGCTTCGACAGTGACCGAGGCTGCAGGAAGGCTATGAAAACAGTCGCTGTTACAATGAGATGGCG
CTGATCCGCGTGGTGCAGTCCATGACCCAGCTGGTGGCGGGCCCCCCCCGAGGACTTTGAGCAGGAGATCAGGCAA
CACTTTAGCACTGGTGGCTGGCGGCTGGTGAACCGTATCGAGTCTGGCTGGAAACCCATGCCCTGCTGGAGAAG
GCCCAGGCACTGCCCCACGGGTGCCCAAGGCCAGCAGCTCGCCAGACGCCCCAGCTGTAGCCGAGCTGTCAGAC

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FIGURE 4977B

TCCGGCCAACAAGAACCTGAGGATGGAGGGCCAGCCCCAGGAGAGGCCTCCCAGGGCTCAGACTCAGAGGGCGGT
GCCAGGGCCTGGCCTCAGCTAGCAGGGACCACACAGACCAGACTTCGGAGACCGCACCAGACGCATCGGTGCCAC
CCAGTGTGAAACCAAAGAAGCGGAGAAAGAGCTACCGGAGCTTCTTACCTGAGAAGAGTGGCTACCCTGACATCG
GCTTCCCCCTCTTCCCACTTTCCAAGGGTTTCATCAAGAGCATCCGGGGTGTCTGACGCAGTTCCGGGCTGCCCT
GCTAGAGGCAGGCATGCGGXAGTGCACAGAGGACAAGTAGCTGCCAGGCACAGAGGAAAGAGCATCACCGTGGGA
GAGGCCAGCCGCCGCTGCTCACTCCCCCCCCGAATCACCCCTCTTCCCATGCCCCCTGTGTCCCCACTGCAAACC
CACTGCCCTCTTCTCCCCAAGGTGAGTTTGTATGCTGAAGTGCAAGAAGTGTGTTGAGATGCTGCCGTTTCTATTT
TGAAGCGAGCTTTCAACAGGCGGGTCCCCGTGTGGCAAAGAAAATCGGAACCCTGTTGCCGATTTTCCATTTGTCA
CCCCAGCAGAAATGTCCGGCACCTTGCTCCCTTGCTGCCCCCTTCTCAGGTCAGAGGCGGGTGTTCAGGGCCTGCCG
CGGGGCTCTCTGGGGCCGGTTCCCTGCAGACCCGCAGACGAGCACATGTGCCCTTGCAATGAAGTGTGGGTGCGCCA
ACAATTTCCCTGGTCCCTTTCAACCTGTTTAGTTCAACTCAAGCCTCCCTGTGTCCCAGACCCTCCTGCTGCCAC
CACCACCCAGGTCCCTCCCTAGTCCCTCCAGCGTCAACACTATCCCTTGGGGAGTTGTAGCTGCTGTCACTGACTCC
CGGCTATACATGGCCTGTGACCCAGGAGAGGTGGTGGCCCTTACACATGCACATGGAGTTGAGGACCAGGGAGCT
GCAGGGAAAGCAACAGCTATAGGTGCCCTTGCTCTTCTGTGCGGAGGCTGCTGGGGGCAAGAGCAGCTGCACAAGGC
CAGGGCAAGTGCTAGGGCCCCCTCCCCATCACATGGTCAACTGGGACAGGCGTGACGCTCACTGAACTCCAAGC
GAGCCAGCCCTCTCTTGGAAGTAGAAGGCTACTGTGAGCCCTTCGCTTACAACTGCAGGCTCAATCCGAAGGGG
ACGGCCGGCGGGGGCTCTCCTAGTGCCAGAGACAGGCCCAGAGGTTTACAAGTTTCTAAGCTTTTGATAATGT
GAAGCTCCAGGCCGAGAGGATGCTGTTGAGCACATTGCAGCTATGTAATTTTGGTGTATGTATGTAATATTTAA
GGTTGGAACAAAACTCAAAAGCAAAGATATTAAGTCTTATTAGAAAAAAGACAAAAAAGCCAAAGCATGA
TGCGTCTTGTGAGCCTTAAGTGGGCTCCACACCTGTGCTGTGCTGTGACCGCCAGCCAGCAGAGCTGCGGGAGG
ATGGAGCCGGACCACACACCGTGGCATTGGAACCGAGTCGGTATCTTGTGTTGAGAAACACCCGGAGTACTGGT
GGGGCTGTGCTTCCAGTGCAATTGTACATGTGGAGATGTGAATGCCTACTGCTTACGATATCTGTATAAAGTGCT
GTGTGATTAACTTTTTTTTACTTGC

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FIGURE 4978

CAGGACGCACATGCAGAACATCAAGGACATTTGGGTCTCCTTCGTGGTGTACCTTGTGAAGCGCCTCAA
CGAGGGCAGCAGCGCCATGGCCAACGGCATGGAGGAGAAGGAGCCAGAAGCCCCGGAGATGTAGACGCCACCTG
CCCACCCCCGGGATCCTGCCCCAAGTCATTTCCGTCCCCCCCCCAGGCCCTCCACCACCCCATTTTATTTTATA
TGATTTTCTCCATTTGTTCATCGTTCCCCACCCCTTCGACATGCTGCCAGGAAACAAGGGAAGGGGCTCCCTCCG
AGTGAGTCAGTGATGAGGCCGCGGCCCTCCCCGAGGTTGTGGGGAGGCTGCACTGGAGCCACAGGCAGGGGTGAGA
GCACCCACTGAATTGACATGACCCTCTGTCCCCAGGCCTGGCTCCCCGAGGGCTCAGAAGAGCAGCTTCGGTGTG
CAGATCATCCGCTCTGTGTGGGGTTCTCAGTGCCGGAGGCCTTGGGGTGGGGGCCAGGCCTCGCACTTGCAGAGGA
GCCCCAGTGGGCTGCACGCTCCCCTCCATCCCCATCGGCCCTGTCCCCTGGAGTGTGTGAGAGCCAGGGGAGAAT
GCAGCCCACCAGGAGCACCTGGACCCCTGCCCGCCACATGGTGTGGCCATCACTCAGCCCCCTACCCCTGCCCTG
CTCCTAAGGGTAGAAAACCTCCAGGGTCCCCTGCCACCGACTGCCAGCCACTCCAAGCCCCCTGGCAGCTGCCCC
TCCTGGAGCAGAAAGTGCCTTTATCTCAGCCATCCGCAGACTGCTTGGCCAGATGCGGGGACAGGCTGGAATGAG
GGAGGCGTCTTCATCTCCCTGCCATCCCCCTCTCACGCCACCCCCGCCCCACCGGGCTGCAGGTGCTGCTGATG
CGCTGGGATCTGATTGAGGATAAAAAGGAAGGAGAGATGACCCCTACCCCTCATCCCCAGTTTTGAAAAGGTC
TAAGCAAGTGAGTCTGGTGGAGGAGCTGAGGGAGGGAGCCATGGAAGGTGCCAGAAGGAAGGTTGGCGGGGGCAC
GTGTGGGCCGTGGCTTGGGCTGGTCAGAGTGGCGTGAGCTGCCCGGCGCCTGCCCTGCCCAAGTGACCAGGGAAG
TGTGTGTGTGTCCATGTGTATGCGTGTCCGTCTGTCTGTCTAGTGTCTGGGTTTGGCCCCAAGACTGGGCTGTAGT
TACATTAATGCCCAGCCAGCCACCCCTGCCACTCACCTTCTGGGCCAGGCCTTGTGACTCTCTGAGCTGGGG
AGGTGGGAGGCCAGGCGAGCCTGACTCTGTTGATCTACCCGTGCCCTGGGCCCCCTCCCCTCAGAGCCCATGGTAAC
GAACCCCTAGAAAGGAGAGAACGGGCGTCAGGGGTGCACAGTCCACAGCTGAAGAGCAAGGTTTCGTGGCAGCAC
GGCCCGGCCCTCACCTCTGTCCCCACGAGGGGACCCATGGGGGCTGTCTTTCAGGGGCACAGATGACCAAAGT
CCCTTCCCTGCTTCCCTGTTACCTGTCTTGCTCCTGGGGAGAAAGAGGGGCTGATGAGACTCCACTCAGGTGCACA
CATCACCAGGTGCATCTGCAGGCACCGGGCTGGCTGCTTGAGCCAGGAGAAGGTGAGCGAGAAGGAGTGTATGA
GTGTGAGTGTGTGTGCATGGAAGTTGGGGCACTGGGCGTCTGACTCCCTCCCCACCCAAGAGAGGAAGGACCCCT
CACCACCCCACTGGTGAGACAGTTTACTTTGCCAACTTGCCATGTTTTTGCCAAAACCAAGATTTTGAAGGAAA
TGAGTGGCCAGCGCCAGGGCCCAGGCCATGTGGCCTGCCAGCCTCAATGTCACCTGGTGGCGGGGTGGGGTGGG
GGTGGGCAGCAGCATCCCAGCCTTGAGATGCTTCACTTTCCTTCTCTGTAACCAGACTTTGAAAAATTGTTTCGTT
TCATCAGGCTCTGTTCCCTCAATGGCCTTTTGCTACGTGCCTCCCGAGAAATTTGTCTTTTGTATAAATGACAAA
GTGTTGAAAATGTATTTCTGAAATAAATGTTTCAAATGCAGAAACCC

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FIGURE 4979

MGSFRTSSALKRSFEVEEETPNSTPPRRVQTPLLRATVASSTQKFQDLGVKNSEPSARHVDSLSQRSPKASLRR
VELSGPKAAEPVSRRELSIDISSKQVENAGAIGPSRFGKRAEVLGHKTPEPAPRTEITIVKPQESAHRMEP
PASKVPEVPTAPATDAAPKRVEIQMPKPAEAPTAPSPAQTLNSENAPVSQLQSRLEPKPQPPVAEATPRSQEAT
EAAPSCVGDMA DTPRDAGLKQAPASRNEKAPVDFGYVGIDSILEQMRRKAMKQGFEFNIMVVGQSGLGKSTLINT
LFKSKISRKSVQPTSEERIPKTIEIKSITHDIEEKGVRMKLTVIDTPGFGDHINNENCWQPI MKFINDQYEKYLQ
EEVNINRKKRIPDTRVHCCLYFIPATGHSRPLDIEFMKRLSKVVNIVFVIAKADTLTLEERVHFKQRITADLLS
NGIDVYPQKEFDEDESDRLVNEKFREMIPFAVVGSDHEYQVNGKRILGRKTKWGTIEVENTTHCEFAYLRDLLIR
THMQNIKDITSSIHFEAYRVKRLNEGSSAMANGVEEKEPEAPEM

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FIGURE 4980

CAGATGTAGTTTTTCCGCACGTGCACGCCCTTCCCTCCTCCCCGCCCTCAGGGTCCACGGCCACCATGGCATATT
AGGGGCAGCAGTGCCTGCGGCAGCATTGGCCTTTGCAGCGGCGGCAGCAGCACCAGGCTCTGCAGCGGCACCCCC
CAGCGGCTTAAGCCATGGCGCTTCCCACGGCATTGAGCAGCAGCATTGCTGTAAACGACAAAGACACCTTCGAAT
TAAGCACATTACTCGATTCCAGCAAAGCACCGCAACATGACCGAAATGAGCTTCCTGAGCAACGAGGTGTTGGTG
GGGGACTTGATGTCCTTTCGACCAGTCGGGTTTGGGGGCTGAAGAAAGCATAGGTCTCTTAGATGACTACGTG
GAGGTGGCCAAGCACTTCAAACCTCATGGGTTCTCCAGCGACAAGGCTAAGGCGGGCTCCTCCGAATGGCTGACT
GTGGATGGGTTGGTCAGTCCCTCCAACAACAGCAAGGAGGATGCCTTCTCTGGGACACATTGGATGTTGGAGAAA
ATGGATTTGAAGGAGTTCGACTTTGGTGCCCTGTTGGGTATAGATGACCTGGAAACCATGCCAGATGACCTTTTG
ACCACGTTGGATGACACTTGTAAATCTCTTTGCCCCCTAGTCCAGGAGACTAATAAGGTGCCCCCCCAGATGGTG
AACCCAATTGGCCATCTCCCAGAAAGTTTAACAAAACCCGACCAGGTTGCCCCCTTACCTTCTTGCAACTTCTT
CCCCTTTCCCCAGGGGTCCAGTCTCCACTCCAGATCATTCCTTTAGTTTAGAGCTGGGCAGTGAAGTGGATATC
ACTGAAGAAGATAGGAAGCCGGACTCCACTGCTTACGTTGCCATGATCCCTCAGTGCATAAAGGAGGAAGACACC
CCTTCAGATAATGATAGTGGCATCTGTATGAGCCCAGAGTCCATCTGGGGTCTCCTCAGCATAGCCCCCTCTACC
AGGGGCTCTCCAAATAGGAGCCTCCCATCTCCAGGTGTTCTCTGTGGGTCTGCCCCCCCCAAACCTTACGATCCT
CCTGGAGAGAAGATGGTAGCAGCAAAAGTAAAGGGTGAGAAACTGGATAAGAAGCTGAAAAAATGGAGCAAAAC
AAGACAGCAGCCACTAGGTACCGCCAGAAGAAGAGGGCGGAGCAGGAGGCTCTCACTGGCGAGTGCAAAGAGCTG
GAAAAGAAGAACGAGGCTCTAAAAGAGAGGGCAGATTCCCTGGCCAAGGAGATCCAGTACCTGAAAGATTTGATA
GAAGAGGTCCGCAAGGCAAGGGGAAGAAAAGGGTCCCCCTAGTTGAGGGTAGGTGAGGAGTGTCAACGTGCTTGT
ACATAGAGTGTCTGCTGTAGCTGTGTGTTCCAATAAATTATTTTGTAGGG

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FIGURE 4981

MTEMSFLSNEVLVGDLMSPFQSGLGAEESIGLLDDYVEVAKHFKPHGFSDDKAKAGSSEWLTVDGLVSPSNNSK
EDAFSGTHWMLEKMDLKEFDGALLGIDDLETMPD DLLT LDDTCNLFAPLVQETNKVPPQM VNP IGHLPESLTK
PDQVAPFTFLQLPLSPGVQSSTPDHSFSLELGSEVDITEEDRKPDSTAYVAMIPQCIKEEDTPSDNDSGICMSP
ESYLGSPQHSPSTRGSPNRS LPSPGVLCGSAHPKPYDPPGEKMVA AKVKGEKLDKKLKKMEQNKTAATRYRQKKR
AEQEALTGECKELEKKNEALKERADSLAKEIQYLKDLIEEVRKARGKKRVP

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FIGURE 4982

CGCTAGCCTGCGGAGCCCGTCCGTGCTGTTCTGCGGCAAGGCCTTTCCAGTGTCACGCGGAAGGCAACTGC
CTGAGAGGCGCGGCGTCGCACCGCCAGAGCTGAGGAAGCCGCGCCAGTTCGCGGGGCTCCGGGCGCCACTCA
GAGCTATGAGCTACGGCCGCCCCCTCCCGATGTGGAGGGTATGACCTCCCTCAAGGTGGACAACCTGACCTACC
GCACCTCGCCCGACACGCTGAGGCGCGTCTTCGAGAAGTACGGGCGCGTCGGCGACGTGTACATCCCGCGGGATC
GCTACACCAAGGAGTCCCGCGGCTTCGCCCTCGTTTCGCTTTACGACAAGCGCGACGCTGAGGACGCTATGGATG
CCATGGACGGGGCCGTGCTGGACGGCCGCGAGCTGCGGGTGCAAATGGCGCGCTACGGCCGCCCCCGGACTCAC
ACCACAGCCGCGGGGACCGCCACCCCGCAGGTACGGGGGCGGTGGCTACGGACGCCGGAGCCGACGCCCTAGGC
GGCGTCGCCCGACCCGATCCCGGAGTCGGAGCCGTTCCAGGTCTCGCAGCCGATCTCGCTACAGCCGCTCGAAGT
CTCGGTCCCGCACTCGTTCTCGATCTCGGTTCGACCTCCAAGTCCAGATCCGCACGAAGGTCCAAGTCCAAGTCCT
CGTCGGTCTCCAGATCTCGTTTCGCGGTCCAGGTCCCGGTCTCGGTCCAGGAGTCCTCCCCAGTGTTCCAAGAGGG
AATCCAAATCCAGGTTCGCGATCGAAGAGTCCCCCAAGTCTCCTGAAGAGGAAGGAGCGGTGTCTCTTAAGAAA
ATGATGTATCGGCAAGCAGTGTAACCGGAGGACTTGGGGAAAAAGGACCACATAGTCCATCGAAGAAGAGTCCTT
GGAACAAGCAACTGGCTATTGAAAAGGTTATTTTGTAAACATTTGTCTAACTTTTACTTGTTTAAGCTTTGCCTC
AGTTGGCAAACCTTCATTTTATGTGCCATTTTGTGCTGTTATTCAAATTTCTTGTAAATTTAGTGAGGTGAACGAC
TTCAGATTTTATTATTGGATTTGGATATTTGAGGTAAAAATTTCAATTTTGTATATAGTGCTGACTTTTTTTGTTT
GAAATTAACAGATTGGTAACCTAATTTGTGGCCTCCTGACTTTTAAGGAAAACGTGTGCAGCCATTACACACAG
CCTAAAGCTGTCAAGAGATTGACTCGGCATTGCCCTTCATTCCTTAAAAATAAAAACCTACAAAAGTTGGTGTA
TTTGTATATGTTATTTACCTTCAGATCTAAATGGTAATCTGAACCCAAATTTGTATAAAGACTTTTCAGGTGAAA
AGACTTGATTTTTTGAAAGGATTGTTTATCAAACACAATCTAATCTCTTCTTATGTATTTTTGTGCACTAGG
CGCAGTTGTGTAGCAGTTGAGTAATGCTGGTTAGCTGTTAAGGTGGCGTGTTCAGTGCAGAGTGCTTGGCTGTT
TCCTGTTTTCTCCCGATTGCTCCTGTGTAAAGATGCCTTGTCGTGCAGAAACAAATGGCTGTCCAGTTTATTAAA
ATGCCTGACAACCTGCACTTCCAGTCACCCGGGCCTTGCAATAAAATAACGGAGCATACAGTGAGCACATCTAGCT
GATGATAAATACACCTTTTTTCCCTCTTCCCCCTAAAAATGGTAAATCTGATCATATCTACATGTATGAACTTA
ACATGGAAAATGTTAAGGAAGCAAAATGTTGTAACCTTGTAAAGTACTTATAACATGGTGTATCTTTTTGCTTATG
AATATTCGTATTATAACCATTTGTTCTGTAGTTTAATTAACATTTTCTTGGTGTTAGCTTT

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FIGURE 4983

MSYGRPPPDVEGMTSLKVDNLTYRTSPDTLRRVFEKYGRVGDVYIPRDRYTKESRGFAFVRFHDKRDAEDAMDAM
DGAVLDGRELRVQMARYGRPPDSHHSRRGPPPPRYGGGGYGRRSRSPRRRRRSRSRSRSRSRSRSRSRYSRSKSR
SRTRSRSRSTSKRSARRSKSKSSSVSRSRSRSRSRSRSPPPVSKRESKRSRSRSKSPPKSPEEEGAVSS

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FIGURE 4984

CTTGGACTTGGACCTTCGTGCGGATCTGGACTTGGAGGTCGACCGAGATCGAGAACGAGTGCGGGACCGAGACTT
CGAGCGGCTGTAGCGAGATCGGCTGCGAGACCTGGAACGGCTCCGACTCCGGGATCGGCTGCGGCGACGCCGCCT
AGGGCTGCGGGCGGGACGAGCAAGCACAGCGGGGTTAATTCCAGGCAGCGGGGCCGGCCCCGCCGCGXCTXC
CCGCCCAGGCCGCCATTATCTCGCCGCCAGACGCCATTTCCCCAGTCGCGAGGCGGGGTCTCCGCCCGCGCCG
CCCACACCCCGGCCACTCCCGGGTCGCGAGACGGCGGAAGCTCGCGGGGTGGCCGGAGGGTCGCGAGACGCGGCGT
GCACCCCGCCCCXGTXCCGGGCCCGCACACGTCGCTTCGCCCGGACCTTTGTGAGGTGCGCCGGGCCTCCCG
CGCGCCCCGCCCGCCTCCCGCGGTCCCCTCAGCCCCGTTTACCTGCGGCTCCGGCGTCCGTAGCCACCGCCCC
GTACCTGCGGGGTGGCGGTCCCCGGCGGCTGTGGTGTGAGTCCGGGGGCGGCCGTAGCGCGCCATTTGCACCCG
CAGCTCGCGGCGCTCCAGCACGGCCCCGTCCATGGCATCCATAGCGTCCCTCAGCGTCGCGCTTGTCTGTGAAAGCG
AACGAAGGCGAAGCCGCGGGACTCCTTGGTGTAGCGATCCCGCGGGATGTACACGTCGCCGACGCGCCCGTACTT
CTCGAAGACGCGCCTCAGCGTGTGCGGCGAGGTGCGGTAGGTGAGGTGTCCACCTTGAGGGAGGTACATACCCTC
CACATCGGGAGGGGGGCGGCCGTAGCTCATAGCTCTGAGTGGCGGCCCCGAGCCCCGGAACCTGGCGCCGGCTTC
CTCAGCTCTGGGCGGTGCGACGCCGCGCCTCTCAGGCAGTTGCCTTCCGCGTGGGGACACTGGGAAAGGCCTTGC
CGCAGAACAGCACGGACGGGCTCCGCGAGGTAGCGCACCTGAGTAACAACCTGGGCGGGCAGCCGGCCTCTGCGCC
CGTTTATATCGCTCCTCACAAAATGGCGCCCCGCGCCACCCGGAATGAAACCTTCTGATTGGCCCCACCGCGCCCC
GCTTCGTAACGACCCTGCCGCGCGCCCCGCCCTACCCGAAGCGCCTGCGCACAGCCCCGGCGGGCGGGCCAAAAA
GCGCGGAGTCACGGCTGGAGGGAGGGGGAGCGGAATTAGCGGGCAGTTGGAAAGCCCCGGAACGCTTTTTCCGC
CTGGGAGGCCGGACGATCGCGATTGGGCGAGGAGXGXAAGAGGAGGTGCTCCCCATCTGGGCCCCACCTTTTTTT
CATGCCAATACTCCAAGTTCACGCCCTTTTTTGTCTCAGCCGTGAGCCCCGTCTCCGTCTGAAGAGTGCTTCTGC
CCTCATTTGCCTCTCCCTGTGACCCCGGCCCCCTCAGACTCCGCTGCGTCTCTCTCGGCCCCGTCCAGCCGTTT
CTGACTGCTCTTCGCCGGAGTCCGCTTCCCAACCCCTTTTCGCCAGAGCCCGAGAGCTCCGTGCGCTCTGCGTCC
TGGCGGTGGGGACTCCCCGCCGAGCGCTTGCCTGTCAGGTACCCGGGACTACGTTTCCXAXGCGXGCGCC
GAGCGGCCGGCGCCGCGGCTGCGGTGAGGTGACCCGGTCGCTGGCCGAGTGAGTCAGGTGGGAGGGCGGGG
CGCGCCGGCTGCTGCGGCTGGCACTTGGCCCTTTAATCCCTTTCGTGGGCCCCCAACCTGGAGCGGATAAATTC
TTGGCGCTTCTXCCGGGGGTGTGCTCTTCCGTACTCGGATCGCTTCTTAGGAGTATCTAACTGCCGTGGGA
GAACTTCGCCCTAAACCTGGGGTTCCGATCCAGGAAGTGAAGTTGACAGCTTGGCTGCCTGGCTCCTACATCTG
CCTTCTCCACTACCATCTCATTCTTTCTCCAGGATTGTGAGTGGCTTCGCCCCGAGGAGAGCTGACTGCCCTG
GGCTGCTGCTCCGGCAGAGCTGAGCCAAAATGTCCCCGAATCTAAAAAGCTTTTCAACATCATTATTTTAGGA
GTTGCCTTTATGTTTATGTTCACTGCCTTTCAAACCTTGTGG

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FIGURE 4985

CCGCCAGATTTGAATCGCGGGACCCGTTGGCAGAGGTGGCGGCGGCGGCATGGGTGCCCCGACGTTGCCCCCTGC
CTGGCAGCCCTTTCTCAAGGACCACCGCATCTCTACATTCAAGAACTGGCCCTTCTTGGAGGGCTGCGCCTGCAC
CCCGGAGCGGATGGCCGAGGCTGGCTTCATCCACTGCCCCACTGAGAACGAGCCAGACTTGGCCCAGTGTTTCTT
CTGCTTCAAGGAGCTGGAAGGCTGGGAGCCAGATGACGACCCCATAGAGGAACATAAAAAAGCATTTCGTCGGTTG
CGCTTTCCTTTCTGTCAAGAAGCAGTTTGAAGAATTAACCCCTTGGTGAATTTTGAAGTGGACAGAGAAAGAGC
CAAGAACAAAATTGCAAAGGAAACCAACAATAAGAAGAAAGAAATTTGAGGAAACTGCGAAGAAAGTGCGCCGTGC
CATCGAGCAGCTGGCTGCCATGGATTGAGGCCCTCTGGCCGGAGCTGCCTGGTCCCAGAGTGGCTGCACCACTTCC
AGGGTTTATTCCCTGGTGCCACCAGCCTTCCCTGTGGGCCCCCTTAGCAATGTCTTAGGAAAGGAGATCAACATTTT
CAAATTAGATGTTTCAACTGTGCTCCTGTTTTGTCTTGAAAGTGGCACCAGAGGTGCTTCTGCCTGTGCAGCGGG
TGCTGCTGGTAACAGTGGCTGCTTCTCTCTCTCTCTCTTTTTTGGGGGCTCATTTTTTGCTGTTTTTGATTCCCG
GGCTTACCAGGTGAGAAGTGAGGGAGGAAGAAGGCAGTGTCCCTTTTGCTAGAGCTGACAGCTTTGTTTCGCGTGG
GCAGAGCCTTCCACAGTGAATGTGTCTGGACCTCATGTTGTTGAGGCTGTACAGTCCTGAGTGTGGACTTGGCA
GGTGCTGTGAATCTGAGCTGCAGGTTCTTATCTGTACACCTGTGCCTCCTCAGAGGACAGTTTTTTTTGTTG
TTGTGTTTTTTTTGTTTTTTTTTTTTTGGTAGATGCATGACTTGTGTGTGATGAGAGAATGGAGACAGAGTCCCTGG
CTCCTCTACTGTTTAACAACATGGCTTCTTATTTGTTGAATTGTTAATTCACAGAATAGCACAAACTACAAT
TAAACTAAGCACAAAGCCATTCTAAGTCATTGGGGAAACGGGGTGAACCTTCAGGTGGATGAGGAGACAGAATAG
AGTGATAGGAAGCGTCTGGCAGATACTCCTTTTGCCACTGCTGTGTGATTAGACAGGCCAGTGAGCCGCGGGGC
ACATGCTGGCCGCTCCTCCCTCAGAAAAAGGCAGTGGCCTAAATCCTTTTTAAATGACTTGGCTCGATGCTGTGG
GGGACTGGCTGGGCTGCTGCAGGCCGTGTGTCTGTACGCCAACCTTCACATCTGTACGTTCTCCACACGGGGG
AGAGACGCAGTCCGCCAGGTCCCCGCTTTCTTTGGAGGCAGCAGCTCCCGCAGGGCTGAAGTCTGGCGTAAGAT
GATGGATTTGATTGCCCTCCTCCCTGTCATAGAGCTGCAGGGTGGATTGTTACAGCTTCGCTGGAAACCTCTGG
AGGTCATCTCGGCTGTTCTGAGAAATAAAAAAGCCTGTCATTC

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FIGURE 4986

MGAPTLPPAWQPFLKDHRI STFKNWPFLEGC ACTPERMAEAGFIHCPTENE PDLAQCFFCFKELEGWEPDDDP IE
EHKKHSSGCAFLSVKKQFEELTLGEFLKLDRE RAKNKIAKETNNKKKEFEETAKKVRR AIEQLAAMD

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FIGURE 4987

GCGGCGGCGGCAGCGGCGGCGACGGCGACATGGAGAGCGGGGCCCTACGGCGCGGCCAAGGCGGGCGGCTCCTTCG
ACCTGCGGCGCTTCCTGACGCAGCCGCAGGTGGTGGCGCGCGCCGTGTGCTTGGTCTTCGCCTTGATCGTGTTC
CCTGCATCTATGGTGAGGGCTACAGCAATGCCACGAGTCTAAGCAGATGTACTGCGTGTTCAACCGCAACGAGG
ATGCCTGCCGCTATGGCAGTGCCATCGGGGTGCTGGCCTTCCTGGCCTCGGCCTTCTTCTTGGTGGTTCGACGCGT
ATTTCCCCCAGATCAGCAACGCCACTGACCGCAAGTACCTGGTCATTGGTGACCTGCTCTTCTCAGCTCTCTGGA
CCTTCCTGTGXTGGTTTGTTGGTTTCTGCTTCCTCACCACCAAGTGGGCAGTCACCAACCCGAAGGACGTGCTGGTG
GGGGCCGACTCTGTGAGGGCAGCCATCACCTTCAGCTTCTTTCCATCTTCTCCTGGGTAGGATGGCCAGGGGCC
GGTTCTTGGGTCAAGGXGTGTGGAAGGGGGGGXAXCCCCAXCCCACCTGTACCCTGCTGTGCTCCCCCTGCAGG
GTGTGCTGGCCTCCCTGGCCTACCAGCGCTACAAGGCTGGCGTGGACGACTTCATCCAGAATTACGTTGACCCCA
CTCCGGACCCCAAXACACTGCCTACGCCTCCTACCCAGGTGCATCTGTGGACAATAACCAACAGCCACCCCTCACC
CAGAACGCGGAGACCACCGAGGGCTACCAGCCGCCCCCTGTGTACTGAGCGGCGGTTAGCGTGGAAGGGGGACA
GAGAGGGCCCTCCXCTCTGCCCTGGACTTTCCCATGAGCCTCCTGGAAGTCC

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FIGURE 4988

CTTACTGCGGGACGGCCTTGGAGAGTACTCGGGTTCGTGAACCTTCCCGGAGGCGCAATGAGCTGCATTAACCTGC
CCACTGTGCTGCCCTGGCTCCCCAGCAAGACCCGGGGGAGATCCAGGTGATTCTCGGGCCGATGTTCTCAGGAA
AAAGCACAGAGTTGATGAGACGCGTCCGTGCTTCCAGATTXGCTCAGTACAAGTGCCTGGTGATCAAGTATGCC
AAAGACACTCGCTACAGCAGCAGXCTTCTGCACACATGACCGGAACACCATGGAGGCACTGCCCGCTGCCTGCT
CCGAGACGTGGCCCAGGAGGCCCTGGGCGTGGCTGT CATAGGCATCGACGAGGGGAGTTTTTCCCTGACATCGT
GGAGTTCTGCGAGGCCATGGCCAACGCCGGAAGACCGTAATTGTGGCTGCACTGGATGGGACCTTCCAGAGGAA
GCCATTTGGGGCCATCCTGAACCTGGTGGCGCTGGCCGAGAGCGTGGTGAAGCTGACGGCGGTGTGCATGGAGTG
CTTCCGGGAAGCCGCCTATACCAAGAGGCTCGGCACAGAGAAGGAGGTGAGGTGATTGGGGGAGCAGACAAGTA
CCACTCCGTGTGTGGCTCTGCTACTTCAAGAAGGCCTCAGGCCAGCCTGCCGGGCCGGACAACAAAGAGAACTG
CCCAGTGCCAGGXAAAGCCAGGGGAAGCCGTGGCTGCCAGGAAGCTCTTTGCCCCACAGCAGATTCTGCAATGCA
GCCCTGCCAACTGAGGGACCTGCGAGGGCCGCCCGCTCCCTTCCTGCCACTGCCGCCTACTGGACGCTGCCCTGC
ATGCTGCCCAGCCACTCCAGGAGGAAGTCGGGAGGCGTXGGAGGGTGACCACACCTTGGCCTTXCTGGGAACCTCT
CCTTTGTGTGGCTGCCCCACCTGCCGCATGCTCCCTCCTCTCCTACCCACTGGTCTGCTTAAAGCTTCCCTCTCA
GCTGCTGGGACGATCGCCAGGCTGGAGCTGGCCCCGCTTGGTGGCCTGGGATCTGGCACACTCCCTCTCCTTGG
GGTGAGGGACAGAGCCCCACGCTGTTGACATCAGCCTGCTTCTTCCCCTCTGCGGCTTTCACTGCTGAGTTTCTG
TTCTCCCTGGGAAGCCTGTGCCAGCACCTTTGAGCCTTGGCCCACACTGAGGCTTAGGCCTCTCTGCCTGGGATG
GGCTCCCACCCTCCCCTGAGGATGGCCTGGATTACGCCCCTCTTGTTTCCCTTTGGGCTCAAAGCCCTTCCCTACC
TCTGGTGATGGTTTCCACAGGXAAACAACAGCATCTTTACCAAGATGGGTGGCACCAACCTTGCTGGGACTTGGGA
TCCCAGGGGCTTATCTCTTCAAGTGTGGAGAGGGCAGGGTCCACGCCCTCTGCTGTAGCTTATGAAATTAACATAAT
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FIGURE 4989

AATCGAAAGTAGACTCTTTTCTGAAGCATTTCTGGGATCAGCCTGACCACGCTCCATACTGGGAGAGGCTTCTG
GGTCAAAGGACCAGTCTGCAGAGGGATCCTGTGGCTGGAAGCGAGGAGGCTCCACACGGCCGTTGCAGCTACCGC
AGCCAGGATCTGGGCATCCAGGCACGGCCATGACCCCTCCGAGGCTCTTCTGGGTGTGGCTGCTGGTTGCAGGAA
CCCAAGGCGTGAACGATGGTGACATGCGGCTGGCCGATGGGGGCGCCACCAACCAGGGCCGCGTGAGATCTTCT
ACAGAGGCCAGTGGGGCACTGTGTGTGACAACCTGTGGGACCTGACTGATGCCAGCGTCGTCTGCCGGGCCCTGG
GCTTCGAGAACGCCACCCAGGCTCTGGGCAGAGCTGCCTTCGGGCAAGGATCAGGCCCCATCATGCTGGACGAGG
TCCAGTGCACGGGAACCGAGGCCTCACTGGCCGACTGCAAGTCCCTGGGCTGGCTGAAGAGCAACTGCAGGCACG
AGAGAGACGCTGGTGTGGTCTGCACCAATGAAACCAGGAGACCCACACCCTGGACCTCTCCAGGGAGCTCTCGG
AGGCCCTTGGCCAGATCTTTGACAGCCAGCGGGGCTGCGACCTGTCCATCAGCGTGAATGTGCAGGGCGAGGACG
CCCTGGGCTTCTGTGGCCACACGGTCATCCTGACTGCCAACCTGGAGGCCCAGGCCCTGTGGAAGGAGCCGGGCA
GCAATGTACCATGAGTGTGGATGCTGAGTGTGTGCCCATGGTCAGGGACCTTCTCAGGTACTTCTACTCCCGAA
GGATTGACATCACCTGTCTGTCAGTCAAGTGCTTCCACAAGCTGGCCTCTGCCTATGGGGCCAGGCAGCTGCAGG
GCTACTGCGCAAGCCTCTTTGCCATCCTCCTCCCCCAGGACCCCTCGTTCCAGATGCCCTTGGACCTGTATGCCT
ATGCAGTGGCCACAGGGGACGCCCTGCTGGAGAAGCTCTGCCTACAGTTCCTGGCCTGGAACCTTCGAGGCCCTGA
CGCAGGCCGAGGCCCTGGCCCACTGTCTCCACAGACCTGCTCCAAGTCTGCTGCTGCCAGGAGCGACCTGGCGGTGC
CCAGCGAGCTGGCCCTACTGAAGGCCGTGGACACCTGGAGCTGGGGGGAGCGTGCCTCCCATGAGGAGGTGGAGG
GCTTGGTGGAGAAGATCCGCTTCCCCATGATGCTCCTGAGGAGCTCTTTGAGCTGCAGTTCAACCTGTCCCTGT
ACTGGAGCCACGAGGCCCTGTTCAGAAAGAACTCTGCAGGCCCTGGAATTCCACACTGTGCCCTTCCAGTTGC
TGGCCCCGGTACAAAGGCCCTGAACCTCACCGAGGATACCTACAAGCCCCGGATTTACACCTCGCCCCACCTGGAGTG
CCTTTGTGACAGACAGTTCTGGAGTGCACGGAAGTCACAAGTGGTCTATCAGTCCAGACGGGGGCCCTTTGGTCA
AATATTCTTCTGATTACTTCCAAGCCCCCTCTGACTACAGATACTACCCCTACCAGTCCCTCCAGACTCCACAAC
ACCCAGCTTCCTCTTCCAGGACAAGAGGGTGTCTGGTCCCTGGTCTACCTCCCCACCATCCAGAGCTGCTGGA
ACTACGGCTTCTCCTGCTCCTCGGACGAGCTCCCTGTCTGGGCCCTACCAAGTCTGGCGGCTCAGATCGCACCA
TTGCCTACGAAAACAAAGCCCTGATGCTCTGCGAAGGGCTCTTCGTGGCAGACGTACCGATTTTCGAGGGCTGGA
AGGCTGCGATTCCCAGTGGCCCTGGACACCAACAGCTCGAAGAGCACCTCCTCCTTCCCCTGCCCGGCAGGGCACT
TCAACGGCTTCCGCACGGTCATCCGCCCTTCTACCTGACCAACTCCTCAGGTGTGGACTAGACGGCGTGGCCCA
AGGGTGGTGAGAACCGGAGAACCCAGGACGCCCTCACTGCAGGCTCCCCTCCTCGGCTTCTTCTCTCTGCAA
TGACCTTCAACAACCGGCCACCAGATGTGCCCCACTCACCTGAGCGCTCAGCTTCAAGAAATTACTGGAAGGCT
TCCACTAGGGTCCACCAGGAGTTCTCCACCACCTACCAGTTTCAGGTGGTAAGCACCAGGACGCCCTCGAGG
TTGCTCTGGGATCCCCCACAGCCCTGGTCAGTCTGCCCTGTCACTGGTCTGAGGTCAATAAAATTACATTGA
GGTTCCTA

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FIGURE 4990

MTPPRLFWVLLVAGTQGVNDGDMRLADGGATNQGRVEIFYRGQWGTVCNLDLTDASVVCRALGFENATQALG
RAAFGQGS GPIMLDEVQCTGTEASLADCKSLGWLKSNCRHERDAGVVCTNETRSTHTLDLSRELSEALGQIFDSQ
RGCDLSISVNVQGEDALGFCGHTVILTANLEAQALWKEFGSNVTMSVDAECVPMVRDLLRYFYSSRRIDITLSSVK
CFHKLASAYGARQLQGYCASLFAILLPQDPSFQMPLDLYAYAVATGDALLEKLCLQFLAWNFEALTQAEAWPSVP
TDLLQLLLPRSDLAVPSELALLKAVDTWSWGERASHEEVEGLVEKIRFPMMLPEELFELQFNLSLYWSHEALFQK
KTLQALEFHTVPFQLLARYKGLNLTEDTYKPRIYTSPTWSAFVTDSSWSARKSQLVYQSRXGAFGQIFF

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FIGURE 4991

GTGCCTCCCATGAGGAGGTGGAGGGCTTGGTGGAGAAGATCCGCTTCCCCATGATGCTCCCTGAGGAGCTCTTTG
AGCTGCAGTTCAACCTGTCCCTGTACTGGAGCCACGAGGCCCTGTTCCAGAAGAAGACTCTGCAGGCCCTGGAAT
TCCACACTGTGCCCTTCCAGTTGCTGGCCCCGTACAAAGGCCTGAACCTCACCGAGGATACCTACAAGCCACGGA
AGTCACAACCTGGTCTATCAGTCCAGACGGGGGCCCTTTGGTCAAATATTCTTCTGATTACTTCCAAGCCCCCTCTG
ACTACAGATACTACCCCTACCAGTCTTCCAGACTCCACAACACCCCAGCTTCCTCTTCCAGGACAAGAGGGTGT
CCTGGTCCCTGGTCTACCTCCCCACCATCCAGAGCTGCTGGAACCTACGGCTTCTCCTGCTCCTCGGACGAGCTCC
CTGTCTGGGCCCTCACCAAGTCTGGCGGCTCAGATCGCACCATTCCTACGAAAACAAAGCCCTGATGCTCTGCG
AAGGGCTCTTCGTGGCAGACGTCACCGATTTCGAGGGCTGGAAGGCTGCGATTCCCAGTGCCCTGGACACCAACA
GCTCGAAGAGCACCTCCTCCTTCCCCTGCCCAGGGCACTTCAACGGCTTCCGCACGGTCATCCGCCCCCTTCT
ACCTGACCAACTCCTCAGGTGTGGACTAGACGGCGTGGCCCAAGGGTGGTGAGAACCGGAGAACCCCCAGGACGCC
CTCACTGCAGGCTCCCCCTCCTCGGCTTCCTTCCTCTGCAATGACCT

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FIGURE 4992A

TGCTCCCTCCAAATCCAAGTCCAGCAGTTCTCTCTTCTCTCCACGTTCATCTCTCTTCTCTCAGATGAAGAGGA
TGACAGTGAAGTCTAGATGCTAAGAGGGGTCCCCGGGGCCGCGAGACCCACCCAGTGCCGCAGAAGAAGGCCAGAT
CCTGGTGGCCAAACCCGAGCTGAAGGATCCCATCCGGAAGAAGCGGGGACGAAAGCCCCCTGCCCCAGAGCAAAA
GGCAACCCGAAGACCCGTGAGCCTGGCCAAGGTGCTGAAGACCGCCCGGAAGGATCTGGGGGCCCCGGCCAGCAA
GCTGCCCCCTCCACTCAGCGCCCCCGTTGCGAGGCTGGCAGCTCTGAAGGCCACGCCAAGGAGGCCTGTGGCGG
CCCCAGTGCCATGGCCACCCAGAGAACTGGCCAGCCTAATGAAGGGCATGGCCAGTAGCCCCGGCCGGGGTGG
CATCAGCTGGCAGAGCTCCATCGTGCACTACATGAACCGGATGACCCAGAGCCAGGCCAGGCTGCCAGCAGGTT
GGCGCTGAAGGCCAGGCCACCAACAAGTGCGGCCCTCGGGCTGGACCTGAAGGTGAGGACGCAGAAAGGGGAGCT
GGGAATGAGCCCTCCAGGAAGCAAAATCCCGAAGGGCCCCAGCGGTGGGGCTGTGGAGCAGAAAGTGGGGAACAC
AGGGGGCCCCCGCACACCCATGGTGCCAGCAGGGTGCCCTGCTGGGTGCCAGGCCCCCCAGCCAGCACCCACCCA
GGAGCTGAGCCTCCAGGTCTTGGACTTGCGAGAGTGCAAGAATGGCATGCCCGGGGTGGGTCTCTTGGCCGCCA
CGCCACCGCCACCAAGGTGTCCCGGCCACCAACCCAGCCCCCTGGGAAGGGCACTGGGAGTGGCCTCATTGGGGC
CAGCGGGGCCACCATGCCCCACGACACAAGCAAAAGTGAGAAGCTGGCTTCCAGAGCAGTGGCGCCACCCACCCC
TGCCAGCAAGAGGGACTGTGTCAAGGGCAGTGCTACCCCCAGTGGGCAGGAGAGCCGCACAGCCCCCGGAGAAGC
CCGCAAGGCGGCCACACTGCCAGAGATGAGCGCAGGTGAGGAGAGTAGCAGCTCGGACTCCGACCCCCGACTCCGC
CTCGCCGCCAGCACTGGACAGAACCCGTCACTGTCCGTTTCCAGACAGCCAGGACTGGAAGCCCCACCCGCAGCCT
CATCGAGCACGTATTTGTACCGACGTCACTGCCAACCTCATCACCGTCACAGTGAAGGAGTCTCCCACAGCGT
GGGCTTCTTCAACCTGAGGCATTACTGAAGCCCCGGCGCCACCAGCTGCGCGGTCTTACTCCCCTTCCCTGCCTA
TGGTGTGCTTGGCTAAGTGACTCCAGCCCCAAGCCCCCTCAAGAGTCTGGGTGCGGGGAGGAGGAGTGGGTGGC
CTCCTTGATGGGCAGGCTTGAAGGGACTTCTCCCGCACCCACTCTGTCCAGGACATAGGGCAGGGGGCCTCA
CTGCCCTTGTGGTCTCCACCTTGTCTTCTACCTCTGCAGGCCTCTTGTCTCTCCCTCTTGCCTCAGGAACCCGG
TGGCACCTGTGGCTCCAGGTGACTGTCTTGAACAGAGCGGGCTTCTTCATGGCTGCGTTGTTGCTGAGTTTGAAC
TGCTCTCCCTGGCTGCGTGACTGAATCACAGCTTTGGTCCCTGTCTTGCAGGGGCTGAGGTGTGAGGAGGGA
CTTCTGGCCACCTTGCCCTCAGCCCTGGAGTGGGCAGAGAGTATTGTGGGGAGGCATGGCCAGTGGGACTAGTG
TTCCCTCATCTGGCCACAGCTTTTGGGAGATGGGGTGGGCAGGGGTGGTCTGGCTGGCATTGCCTGAGCCGGC
AGTGATGAAGTGGGGAGCTTGCCCTTGACAGGTGGGGGCTGGCTGGGGCCTTAATGTGAAAAGACAGTGGCAGGC
AGCTGGAGTAGAGCGAGCCAGCAGCCCTAAAAGGCTGCCTTCATGGCCATCTAGCCCCAGTTCAGGGCAGCATC
CATAGCCACAAGCCAGCGTGGGTGGGGCGGGGTGGTCCCACAGCTGGGTTCACCTGAAGAGCCTCCGTGCCT
CGGAGCAGGAGAGGCAGGCTATGGCTGCCACCCCTCCCTCCTGCTGTGTCCAGTGAGAACTGACCTGAGTCCCC
TTCCAAACCCAGACCACCTCCTGCCCCAGGCCCCACTGAAGCATGTTCCATTCTAAAAAGCCCAGAGTTTCACTG
TGTCCTCAAGGAAAACCAAAAGTGGAGGTGCTCAGGTCCAGGGGAGTCCAGTGGGCAGGACCCCTGGCAGGCAAGC
CCTCCCTTCACTCCAGGACCTACCTTCTGCTAGTAAAGGACTGGCTTCATTCTAATTATGGCCCCACAGACTGC
CCCGGAGACCTGGAGGACAGCAGTGCTGGCACTTGGGTGTCCATGGGCCCGTCTGCCGCTCTGCCTGTGCTGCA
AGTGTGGCCGTGGGTCCAGCCAACAACCTCCCTACGTCTGTGTGGGGCCCTGCCAAGTGGATGAGGCATTCTCT
TGAGGAGTATCATTTTCCCTGACAATCCCCATCACCTTTAGGGGTTCCCTGCTTGGCTCCTTTCCAGCTGAAAAA
CTAGACCTGTGCCATTGGGGAAGCTGGACAAAGTCTAGGGGGCCCCGCTGGTAGAGGGTCCCGGAAGCTGGATC
TGTCAGCCTCGGCCCTGAGGCCCTGTAACTCAAGACTGTGAGCTGCCTCTAGGTGGTCACGTCTGGGAGCTAG
CTTGATGGCTTCTGACCAGTATCAGGATTTCTGTTCTGAGAGCAGCGTGGGCAGCAAGGCAGGGCAGCCAGAG
GTGGCAGCGCAGGCAATCTGGTCACTAGGTCTTTGTGATGCCAAAAATAAAAGAGGGTGGGGTGGGTGCTTTCT
GTTCTCTGATTGGATGGAGTCCGCCAGCAGGCATGGGGCTACATTCCAGTGCCTGACTATAGGGAGGCACTCCT
GATTCCATGGAGCAGCCCGGACTTTGAGAATGGGCTCTGGTTTGGGGGGCAGGCGTACCAGACTGCAAGACCC
CCCAGTACCTCACCGTGCCAAATAGGAAGAGGTGGCCTTGGTGTAGCCAAATGGATCTTTTTAACAGTGTGCCTT
TGGGGAGGGACCCATGTCCATGGCTTCGTTGAGGGCCATCCATATGCCAGCTGGGGGCCAGCCACAGTGGCCAT
ATTGGCTGCAGCAGGAATGGTGCCACCTCGGCGAATTGAAGGGCTAAGAGTCCCAGATAGCTAGGCCAGAGCTG
GAAGCAGACAGTAAGGGGAAGAGCTGCTCCACAGAAGAGGGAGAGATTCCAGCTCACTGCGCAGCCTGGGAGGA
GGCGTGGATCTTGGCAGCTGAGCCTCAGGCACCAGCCTCCCTGTGCTCGACAGCAAAGTCTTGACTCCTTCTG
CTGAGCACTGTGCTACCTTCACTGCTCCAAAGCCAGACTAACAGCTCTCCAAGCCCTTGGGGTGAAGCTGCTCC
AGGAGCTGTGGAGAAATGAGGATGTCTGTCCCTGTCTGCCTGGGCAGGCCAGATTCTCCCCAGCAGCCGGGTG

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FIGURE 4992B

TCTCCAGACCCTGATTCCGGTGCCTTTCTGTTTACCAGCTACTTCAATCCCAAAGTTTGAATCTGCAGATACCTTA
CTCCCAGCCACTTTGCCTTCTTACTGTGTTGTGTGTTTTCTGGTGCTTCAAGAGCGTGTGCAGGGCAAGTGCC
GTCACTGGGAAGTGCACCAGATGCTCAGACTTGGTTGTCTTATGTTTACCAATAAAATAAAAGTAGACTTTTTCTA
TTTTTATTTGCTGCTATTTGTGTGTGTGTTTGTGTTTGTGTAGCTAGGTATCTGCACTTCTGACGATGCATTGTT
GCTTTTTTCCCGAAGTCCCGCAGGAAGTGTGGCAATGGTGTGTGTGTGAAATGGTGTGTTAACCGCGTTTTGTTT
GCTCCTGTATTGAATAGGAAGCAGTGGCCAGTCTGTCTTCCTTAGAGATGTTAGCATATTTTTATATGTATATAT
TTTGTACCAAAAAAGAGTGTTCTTGTGTTTGGTTACACTCGAAATTCTGACCTAGCTGGAGAGGGCTCTGGGCCG
AGAGCTTTCACTAAGGGGAGACTTCAGGGGAGGATCAAGCTTTGAACCAAAGCCAATCACTGGCTTGATTTGTGT
TTTTTAATTAAAAAAAATCATTTCATGTATGCCACTTCTAA

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FIGURE 4993

MATPENLASLMKGMASSPGRGGISWQSSIVHYMNRMTQSQAAASRLALKAQATNKCGLGLDLKVRTQKGELGMS
PPGSKIPKAPSGGAVEQKVGNTGGPPHTHGASRVAGCPGPGPAPTQELSLQVLDLQSVKNGMPGVGLLARHATA
TKGVPATNPAPGKGTGSGGLIGASGATMPDTSKSEKLASRAVAPPTPASKRDCVKGSATPSGQESRTAPGEARKA
ATLPEMSAGEESSSSSDSDPDSASPPSTGQNPSVSVQTSQDWKPTRSLIEHVFVTDVTANLITVTVKESPTSVGFF
NLRHY

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FIGURE 4994A

GCGCCTGCGCGGGAGGCCGCGTACGTGACCCACCGCGACCCGCCCCGCGACGAGCTCCCGCCGGTCACGTGAC
CCGCCTCTGCGCGCCCCCGGGCAGCAGCCCGGAGTCTCCGCGGCGGGCCAGGGCGCGCTGCGCGGAGGTGAGCC
GGGCCGGGGCTGCGGGGCTTCCCTGAGCGCGGGCCGGGTGCGTGGGGCGGTGCGCTGCCCGCGCGGCCTCTCAGT
TGGGAAAGCTGAGGTTGTGCGCGGGGCCGCGGGTGAGGTGCGGGATGAGGCAGCAGGTAGGACAGTGACCTCGG
TGACGCGAAGGACCCCGGCCACCTCTAGGTTCTCCTCGTCCGCCCCGTTGTTACGCGAGGGAGGCTCTGCGCGTGC
CGCAGCTGACGGGAACTGAGGCACGGAGCGGGCTGTAGGAGCTGTCCAGGCCATCTCCAACCATGGGAGTGA
GGCACCCGCCCTGCTCCCACCGGCTCCTGGCCGTCTGCGCCCTCGTGTCTTGGCAACCGCTGCACTCCTGGGGC
ACATCCTACTCCATGATTTCCCTGCTGGTTCCCCGAGAGCTGAGTGGCTCCTCCCCAGTCCTGGAGGAGACTCACC
CAGCTCACCAGCAGGGAGCCAGCAGACCAGGGCCCCGGGATGCCCAGGCACACCCCGCCGTCCCAGAGCAGTGC
CCACACAGTGCGACGTCCCCCCCCAACAGCCGCTTCGATTGCGCCCCCTGACAAGGCCATCACCCAGGAACAGTGCG
AGGCCCCGCGGTGTTGCTACATCCCTGCAAAGCAGGGGCTGCAGGGAGCCCCAGATGGGGCAGCCCTGGTGCTTCT
TCCCCACCCAGCTACCCACGCTACAAGCTGGAGAACCTGAGCTCCTCTGAAATGGGCTACACGGCCACCCTGACCC
GTACCACCCCCACCTTCTTCCCCAAGGACATCCTGACCCCTGCGGCTGGACGTGATGATGGAGACTGAGAACCGCC
TCCACTTCACGATCAAAGATCCAGCTAACAGGCGCTACGAGGTGCCCTTGGAGACCCCGCATGTCCACAGCCGGG
CACCGTCCCCACTCTACAGCGTGGAGTTCTCCGAGGAGCCCTTCGGGGTGATCGTGCGCCGGCAGCTGGACGGCC
GCGTGCTGCTGAACACGACGGTGGCGCCCCGTGTTCTTTGCGGACCAAGTTCCCTTCAGCTGTCCACCTCGCTGCCCT
CGCAGTATATCACAGGCCCTCGCCGAGCACCTCAGTCCCTGATGCTCAGCACCAAGCTGGACCAGGATCACCTGT
GGAACCGGGACCTTGCGCCCCACGCCCGGTGCGAACCTCTACGGGTCTCACCCCTTTCTACCTGGCGCTGGAGGACG
GCGGGTGGGCACACGGGGTGTCTCTGCTAAACAGCAATGCCATGGATGTGGTCTGTCAGCCGAGCCCTGCCCTTA
GCTGGAGGTGACAGGTGGGATCCTGGATGTCTACATCTTCTGGGCCCAGAGCCCAAGAGCGTGGTGCAGCAGT
ACCTGGACGTTGTGGGATACCCGTTCTATGCCGCCATACTGGGGCTGGGCTTCCACCTGTGCCGCTGGGGCTACT
CCTCCACCGCTATCACCCGCCAGGTGGTGGAGAACATGACCAGGGCCCACTTCCCCCTGGACGTCCAGTGGAACG
ACCTGGACTACATGGACTCCCGGAGGGACTTCAGTTCAACAAGGATGGCTTCCGGGACTTCCCGGCCATGGTGC
AGGAGCTGCACCAGGGCGGCCGGCGCTACATGATGATCGTGGATCCTGCCATCAGCAGCTCGGGCCCTGCCGGGA
GCTACAGGCCCTACGACGAGGGTCTGCGGAGGGGGGTTTTTCATCACCAACGAGACCGGCCAGCCGCTGATTGGGA
AGGTATGGCCCGGTCCACTGCCTTCCCCGACTTCACCAACCCACAGCCCTGGCCTGGTGGGAGGACATGGTGG
CTGAGTTCCATGACCAGGTGCCCTTCGACGGCATGTGGATTGACATGAACGAGCCTTCCAACCTTCATCAGGGGCT
CTGAGGACGGCTGCCCCAACAAATGAGCTGGAGAACCCACCTACGTGCCCTGGGGTGGTTGGGGGGACCCCTCAGG
CGGCCACCATCTGTGCCCTCAGCCACCAAGTTTCTCTCCACACACTACAACCTGCACAACCTCTACGGCCTGACCG
AAGCCATCGCCTCCACAGGGCGCTGGTGAAGGCTCGGGGGACACGCCCAATTTGTGATCTCCCGCTCGACCTTTG
CTGGCCACGGCCGATACGCCGGCCACTGGACGGGGGACGTGTGGAGCTCCTGGGAGCAGCTCGCCTCCTCGGTGC
CAGAAATCTGCAGTTAACCTGCTGGGGGTGCCTCTGGTGGGGGCCGACGTCTGCGGCTTCTGGGCAACACCT
CAGAGGAGCTGTGTGTGCGCTGGACCCAGCTGGGGGCTTCTACCCCTTCATGCGGAACCAACAGCCTGCTCA
GTCTGCCCCAGGAGCCGTACAGCTTCAGCGAGCCGGCCAGCAGGCCATGAGGAAGGCCCTCACCTTGCCTACG
CACTCCTCCCCACCTCTACACACTGTTCCACCAGGCCACAGTCCGCGGGGAGACCGTGCCCCGGCCCCCTCTTCC
TGGAGTTCCCCAAGGACTCTAGCACCTGGACTGTGGACCACAGCTCCTGTGGGGGGAGGCCCTGCTCATCACCC
CAGTGCTCCAGGCCGGGAAGGCCGAAGTGACTGGCTACTTCCCCCTTGGGCACATGGTACGACCTGCAGACGGTGC
CAGTAGAGGCCCTTGGCAGCCTCCACCCCCACCTGCAGCTCCCCGTGAGCCAGCCATCCACAGCGAGGGGCAGT
GGGTGACGCTGCCGGCCCCCTGGACACCATCAACGTCCACCTCCGGGCTGGGTACATCATCCCCCTGCAGGGCC
CTGGCCTCACAACCACAGAGTCCCGCCAGCAGCCCATGGCCCTGGCTGTGGCCCTGACCAAGGGTGGGGAGGCC
GAGGGGAGCTGTTCTGGGACGATGGAGAGAGCCTGGAAAGTGTGGAGCGAGGGGCTACACACAGGTCACTTCC
TGGCCAGGAATAACACGATCGTGAATGAGCTGGTACGTGTGACCAGTGAGGGAGCTGGCCTGCAGCTGCAGAAGG
TGACTGTCTGGGCGTGGCCACGGCGCCCCAGCAGGTCTCTCCAACGGTGTCCCTGTCTCCAACCTTCACTACA
GCCCCGACACCAAGGTCTGGACATCTGTGTCTCGCTGTTGATGGGAGAGCAGTTTCTCGTCAGCTGGTGTAGC
CGGGCGGAGTGTGTTAGTCTCTCCAGAGGGAGGCTGGTTCCCCAGGGAAACAGAGCCTGTGTGCGGGCAGCAGCT
GTGTGCGGGCCTGGGGTTGATGTGTACCTGGAGCTGGGCACTAACCATTCGAAGCCGCCGATCGCTTGT
CCACCTCCTGGGCCGGGGCTCTGGCCCCAACGTGTCTAGGAGAGCTTTCTCCCTAGATCGCACTGTGGGCCGGG
GCCCTGGAGGGCTGCTCTGTGTTAATAAGATTGTAAGGTTTGCCCTCCTCACCTGTTGCCGGCATGGGGTAGTA

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FIGURE 4994B

TTAGCCACCCCCCTCCATCTGTTCCCAGCACCGGAGAAGGGGGTGCTCAGGTGGAGGTGTGGGGTATGCACCTGA
GCTCCTGCTTCGCGCCTGCTGCTCTGCCCCAACGCGACCGCTGCCCGGCTGCCAGAGGGCTGGATGCCTGCCGG
TCCCCGAGCAAGCCTGGGAACCTCAGGAAAATTCACAGGACTTGGGAGATTCTAAATCTTAAGTGAATTATTTT
AATAAAAGGGGCATTTGGAATC

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FIGURE 4995

TCGGCAGCGGCACAGCGAGGTTCGGCAGCGGCACAGCGAGGTTCGGCAGCGGCACAGCGAGGTTCGGCAGCGGCACAG
CGAGGTTCGGCAGCGGCACAGCGAGGTTCGGCAGCGGCACAGCGAGGTTCGGCAGCGGCACAGCGAGGTTCGGCAGCGGCACAG
CGCTGTGCTCTTCCGCGGACTCTGAATCATGGCGACCACGGCCACGATGGCGACCTCGGGCTCGGGCGGAAAGCG
GCTGCTCAAAGAGGAAGACATGACTAAAGTGGAATTTCGAGACCAGCGAGGAGGTGGATGTGACCCCCACGTTTGA
CACCATGGGCCTGCGGGAGGACCTGCTGCGGGGCATCTACGCTTACGGTTTTGAAAAACCATCAGCAATCCAGCA
ACGAGCAATCAAGCAGATCATCAAAGGGAGAGATGTCATCGCACAGTCTCAGTCCGGCACAGGAAAAACAGCCAC
CTTCAGTATCTCAGTCCCTCCAGTGTGTTGGATATTTCAGGTTTCGTGAACTCAAGCTTTGATCTTGGCTCCCAACAG
AGAGTTGGCTGTGCAGATCCAGAAGGGGCTGCTTGCTCTCGGTGACTACATGAATGTCCAGTGCCATGCCTGCAT
TGGAGGCACCAATGTTGGCGAGGACATCAGGAAGCTGGATTACGGACAGCATGTTGTGCGGGGCACTCCAGGGCG
TGTTTTTGATATGATTTCGTGCGAGAAGCCTAAGGACACGTGCTATCAAAATGTTGGTTTTGGATGAAGCTGATGA
AATGTTGAATAAAGGTTTTCAAAGAGCAGATTTACGATGTATACAGGTACCTGCCTCCAGCCACACAGGTGGTTCT
CATCAGTGCCACGCTGCCACACGAGATTCTGGAGATGACCAACAAGTTCATGACCGACCCAATCCGCATCTTGGT
GAAACGTGATGAATTGACTCTGGAAGGCATCAAGCAATTTTCGTGGCAGTGGAGAGGGAAGAGTGGAAATTTGA
CACTCTGTGTGACCTCTACGACACACTGACCATCACTCAGGCGGTTCATCTTCTGCAACACCAAAAGAAAGGTGGA
CTGGCTGACGGAGAAAATGAGGGAAGCCAACTTCACTGTATCCTCAATGCATGGAGACATGCCCCAGAAAGAGCG
GGAGTCCATCATGAAGGAGTTCGGTTCGGGCGCCAGCCGAGTGCTTATTTCTACAGATGTCTGGGCCAGGGGGTT
GGATGTCCCTCAGGTGTCCCTCATCATTAACTATGATCTCCCTAATAACAGAGAATTGTACATACACAGAATTGG
GAGATCAGGTCGATACGGCCGGAAGGGTGTTGGCCATTAACTTTGTAAAGAATGACGACATCCGCATCCTCAGAGA
TATCGAGCAGTACTATTCCACTCAGATTGATGAGATGCCGATGAACGTTGCTGATCTTATCTGAAGCAGCAGATC
AGTGGGATGAGGGAGACTGTTACCTGCTGTGTACTCCTGTTTGGAGTATTTAGATCCAGATTCTACTTAATGG
GGTTTATATGGACTTTCTTCTCATAAATGGCCTGCCGTCTCCCTTCTTTGAAGAGGATATGGGGATTCTGCTCT
CTTTTCTTATTTACATGTAAATAATACATTGTTCTAAGTCTTTTTCATTAAAAATTTAAACTTTTCCCAT

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FIGURE 4996A

GACGGGCTGGGGAGGTGGTGCCAGGCTGGTTGCTAGCTGCCGCCGCTGCTCACC CGCCGCTCCGGCCGCTTCAT
TGTCACCGGGCTCGGGGCAGTGTGGGGGTGGCGGGGCGCCAGGTCGCCGACCCGAGGTTTGGGCGCGACTGGT
TCCGCATCCCCTCCCCGCCGGCCGAATCTGCAGGCCCGCGCGCCAGGCAGGCTTCGCGGCTGCGCCCCCGGCC
GCGCAGGACCTGCCTTGTCACCAATGAAAGGCACCCGGGCCATCGGCAGCGTCCCGAGCGCACGCCAGCAGGTG
TGGACCTGAGTCTGACAGGTCTCCCTCCGCCTGTGTCCCGCGTCTTGGCAGTGCGCCACCACCAAGCCCATCGT
CCGCTCTGTCTCCGTGGTCAAGGCAGCGAGCAGAAGAGGAAGGTGCTGGAGGCCACAGGGCTGGGGGCTCCCA
GGCCATCAACAACCTTAGGAGATCCAACAGCACCCAGCAGGTGAGCCAGCCTCGGAGCGGCTCCCCAGGCCAAC
GGAGCCACAGACTTCCTGATGCTCTTCGAGGGCAGCCCCAGTGGGAAAAAGAGGCCTGCCAGCCTGAGCACAGC
CCCCAGCGAGAAGGGAGCCACCTGGAACGTCTGGATGACCAGCCCCGGGGCTTCACCTTGCCATCCAATGCCCG
GAGTTCCAGTGCCCTTGACTCACCAGCGGGCCCGCGGAGGAAAGAATGCACCGTGGCCCTGGCCCCAACCTTAC
TGCTAACAAACAGGAGCAACAAGGGAGCAGTGGGCAACTGCGTCACCACCATGGTGACAACCGCTACCCCCCTC
GGAGAGGGCGCCTCCGCTCAAGAGCTCCAACCAGACTGCCCCCTCCCTCAACAACATCATCAAGGCAGCCACCTG
TGAGGGCAGTGAGAGCAGCGGCTTTGGGAAGCTGCCGAAGAATGTCTCCAGTGCCACCCACTCAGCCCGGAACAA
TACTGGGGGCGAGCAGGGGCTTGCCAGGCGGAAGGAGGTGACGGAGGAGGAGGCTGAGAGGTTTATCCACCAGGT
GAACCAGGGCACTGTACCATCCAGCGCTGGTACCGGCACCCAGGTGCAGCGGCGCGGAGCAGGAGCTGCCCGCCT
GGAGCACTTGCTTACAGGCCAAGCGGGAGGAGCAGCGGCAGCGGTGAGGCGAGGGGACCTCTTGAGCTGCACCA
GCAGAAAGAGGCAGCCAGGAGGAAGGCCCGGGAGGAGAAGGCACGCCAAGCCAGGCGAGCAGCCATTGAGGAGCT
GCAACAGAAACGAGCCCTGAGAGCCAGAAAGGCGAGCACTGCCGAGCGTGGGCCACCTGAGAATCCAGGGAGAC
CAGAGTGCCAGGAATGCGGCAGCCTGCTCAGGAGCTGTCCCCACACCAGGCGGCACTGCCACCAGGCCCTCAA
GGCCAACAATACTGGTGGTGGCCTCCCTGCTGCAGGCCCCGGAGACCGCTGCTGCCACCTCCGACTCATCCCC
AGAACCACAGCAGCCTCCAGAGGACAGGACGCAGGACGTTCTTGCCAGGATGCAGCTGGGGACAACCTGGAGAT
GATGGCCCCGAGCAGGGGGAGCGCCAAGTCCAGGGGGCACTGGAGGAGCTGCTGCACACTGCAGCTGCTGGA
GAAGGAGCCGAGCTGCTGCCCCGCCAGGACCCATCACAGGGGCGAGATACGCTGGGCCAGCGAGGTGACCAC
GGAGGATGACGCCAGCTCTCTGACAGCTGACAACTTGAGAAATTTGGAAAATCAGTGCGTTCCCCGAACCTCC
TGAGGATGGGACGCTGCTATCGGAGGCCAAGCTACAAAGCATCATGAGCTTCTTGACGAGATGGAGAAGTCTGG
GCAGGACAGCTGGACTCCAGCAGGAGGGGTGGGTGCCGAGGCGGGGCGGGGCCCCCTGGAGCTGGGGTCCGA
GGTGAGCACGTCTGTGATGCGGCTGAAGCTGGAGGTGGAGGAGAAGAAAGCAGGCCATGCTGCTGCTGCAGAGAGC
GCTGGCGCAGCAGCGAGACCTCACGGCCCCGCGGGTCAAGGAGACAGAGAAGGCGCTGAGCCGGCAGCTGCAGCG
GCAGAGGAGCACTACGAGGCCACCATCCAGCGCACTTGCCCTTCAATTGACAGCTGATTGAGGACAAGAAGGT
CCTGAGTGAAAAGTGCAGGCTGTGGTGGCCGAGCTGAAGCAGGAGGACCAGAGATGCACCGAGCGTGTGGCCCA
GGCAGGCGCAGCACGAGCTGGAGATTAATAAACTCAAAGAATTAATGAGCGCCACCGAGAAAGCCCGCGGGA
GAAGTGGATCAGTGAGAAAACCAAGAAGATCAAGGAGGTCACTGTCCGAGGTCTGGAGCCCGAGATCCAGAAGCT
GATTGCAAGGCACAAGCAGGAAGTGCAGGAGCTCAAGAGCCTGCACGAGCGGAGCTGCTGCAGTCGGATGAGCG
GGCCTCGCAGCGCTGCCTGCGCCAGGCCGAGGAGCTGCGGGAGCAGCTGGAGCGGGAGAAGGAGGCGCTGGGCCA
GCAGGAGCGCGAACGTGCTCGGCAGCGGTTCCAGCAGCACCTGGAGCAGGAGCAGTGGGCGCTGCAGCAGCAACG
GCAGCGGCTGTACAGTGAGGTGGCTGAGGAGAGGGAGCGGCTGGGCCAGCAGGCAGCCAGGCAGCGGGCGGAGCT
GGAAGAGCTGAGGCAGCAGCTGGAGGAGAGCAGCTCTGCACTGACCCGAGCCCTGAGGGCTGAGTTTGAGAAGGG
CAGGGAGGAGCAGGAGCGCCGGCACCAGATGGAGCTGAATAACCTGAAGCAGCAGCTGGAGCTGGAGAGGCAGGC
GTGGGAGGCCGGCCGACCAGGAAGGAGGAGGCGTGGCTGCTGAACCGGGAACAGGAGCTGAGGGAAGAAATCCG
GAAAGGCCGGGACAAGGAGATTGAGCTGGTCATTACCGGCTGGAGGCCGACATGGCGCTGGCCAAGGAGGAGAG
TGAGAAGGCTGCCGAGAGCCGCATCAAGCGCTTACGGGACAAGTACGAGGCCGAGCTCTCCGAGCTGGAGCAGTC
GGAGCGGAAGCTTCAGGAGCGGTGCTCGGAGCTGAAGGGCCAGCTTGGGGAGGCCGAGGGCGAGAATCTGCGTCT
GCAGGGCCTTGTGCGGCAGAAAGGAGCGGGCGCTGGAGGATGCGCAGGCGGTGAACGAGCAGCTTTCTAGCGAGCG
CAGCAACCTGGCCCAGGTGATCCGCCAGGAGTTCGAGGACCGGCTGGCAGCCTCTGAGGAGGAGACGCGGCAGGC
CAAGGCCGAGCTGGCCACGCTGCAGGCCCGCCAGCAGCTGGAGCTGGAGGAGGTGCACCGGAGGGTGAAGACAGC
CCTCGCGAGGAAGGAGGAGGCCGTGAGCAGCCTCCGACACAACATGAGGCTGCGGTGAAGCGGGCCGACCACCT
GGAGGAGCTGCTGGAGCAGCACAGGAGGCCACGCCAAGTACCAAGTGACCAGGGATGCCGGGAACACTGTCGAA
GAACGGAAGGCAGAGGACAGAGGCTGGACGTGGGCCAGAGGCCACAGGGACGCCACCTGCCCCCACAGAGG

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FIGURE 4996B

CTGGTGGTTGAGATGCCACGGCTAAGCACCTGTGGCTGCATTTTAACAGTAAAGGAGGCCGTTGTTTTTC

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FIGURE 4997

MKGTRAIGSVPERSPAGVDLSLTGLPPPVSRRPGSAATTKPIVRSVSVVTGSEQKRKVLEATGPGGSQAINNLR
SNSTTQVSQPRSGSPRPTEPTDFLMLFEGSPSGKKRPASLSTAPSEKGATWNVLDQPRGFTLPSNARSSSALDS
PAGPRRKECTVALAPNFTANNRSNKGAVGNCVTTMVHNRYTPSERAPPLKSSNQATAPSLNNIIKAATCEGSESSG
FGKLPKNVSSATHSARNNTGGSTGLPRRKEVTEEEAERFIHQVNQATVTIQRWYRHQVQRRGAGAARLEHLLQAK
REEQRQRSGEGLTLLDLHQQKEAARRKAREEKARQARRAIQELQQKRALRAQKASTAERGPPENPRETRVPGMRQ
PAQELSPTPGGTAHQALKANNTGGGLPAAGPGDRCLPTSDSSPEFQQPPEDRTQDVLAQDAAGDNLEMMAPSRGS
AKSRGPLEELLHTLQLEKEPDVLP RP RTHHRGRYAWASEVTTEDDASSLTADNLEKFGKLSAFPEPPEDGTLLS
EAKLQSIMSFLDEMEKSGDQLDSQQEGWVPEAGPGPLELGSEVSTSMRLKLEVEEKKQAMLLQRALAQQRDL
TARRVKETEKALSRQLQRQREHYEATIQRHAFIDQLIEDKKVLSEKCEAVVAELKQEDQRCterVAQAQAQHEL
EIKKLKELMSATEKARREKWISEKTKKIKEVTVRGLEPEIQKLIARHKQEVRRKLSLHEAELLQSDERASQRCLR
QAEELREQLEREKEALGQQRERARQRFQHLQEQLQALQQQRQRLYSEVAEERERLGQQAARQRAELEELRQQL
EESSALTRALRAEFEGREEQERRHQMELNTLKQQLERQAWAAGTRKEEAWLLNREQLREEIRKGRDKEI
ELVIHRLEADMALAKEESEKAAESRIKRLRDKYAELESELEQSERKLQERCSELKGQLGEAEGENLRLQGLVRQK
ERALEDAQAVNEQLSSERSNLAQVIRQEFEDRLAASEEETRQAKAELATLQARQQLLEEEVHRRVKTALARKEEA
VSSLRTQHEAAVKRADHLEELLEQHRRPTPSTK

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FIGURE 4998

CAGGTGAGGCGGAACCAACCCTCCTGGCCATGGGAGGGGCCGTGGTGGACGAGGGCCCACAGGCGTCAAGGCCCT
GACGGCGGGCTGGGCGTGAGGCGTGCTCTTCGGCTGTTTCGTCATCACTGGCTTCTCCTACGCCTTCCCCAAGGCC
GTCAGTGTCTTCTTCAAGGAGCTCATACAGGAGTTTGGGATCGGCTACAGCGACACAGCCTGGATCTCCTCCATC
CTGCTGGCCATGCTCTACGGGACAGGTCCGCTCTGCAGTGTGTGCGTGAACCGCTTTGGCTGCCGGCCCGTCATG
CTTGTGGGGGGTCTCTTTGCGTCGCTGGGCATGGTGGCTGCGTCCTTTTGCCGGAGCATCATCCAGGTCTACCTC
ACCACTGGGGTCAACACGGGGTGGGTTTGGCACTCAACTTCCAGCCCTCGCTCATCATGCTGAACCGCTACTTC
AGCAAGCGGCGCCCCATGGCCAACGGGCTGGCGGGCAGCAGGTAGCCCTGTCTTCTGTGTGCCCTGAGCCCGCTG
GGGCAGCTGCTGCAGGACCGCTACGGCTGGCGGGGCGGCTTCCTCATCCTGGGCGGCCTGCTGCTCAACTGCTGC
GTGTGTGCCGCACTCATGAGGCCCTGGTGGTCACGCCCCAGCCGGCTCGGGGCAGCCGCGACCCTCCCGGGCGCC
TGCTAGACCTGAGCGTCTTCCGGGACCGCGGCTTTGTGCTTTACGCCGTGGCCGCTCGGTTCATGGTGTGGGGC
TCTTCGTCCCGCCCGTGTTCGTGGTGATGACGCCAAGGACCTGGCGTGCCCGACACCAAGGCGCCTTCTGTCTCA
CCATCCTGGGCTTCATTGACATACTTACGCCCGCGCGGGCTTCGTGCGGGGCTTGGGAAGGTGCGGCCCTATCCG

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CGCGGCGCGCGCGCTCGGAGTGCGCCGGGAGCTGCCAGGCTGCTCCGCGCGCCGCTGCGGGCCATGATCCGGAAC
GGGCGCGGGGCTGCAGGCGGCGCAGAGCAGCCGGGCCCCGGGGGCGAGGCGCGCCGTGAGGGGTGTGGTGCATATGGC
TGCTATGACATGGTGCATTACGGCCACTCCAACCAGCTGCGCCAGGCACGGCCATGGGTGACTACCTCATCGTA
GGCGTGACACCCGATGAGGAGATCGCCAAGCACAAAGGGGCCCCGGTGTTCACTCAGGAGGAGAGATACAAGATG
GTGCAGGCCATCAAATGGGTGGACGAGGTGGTGCCAGCGGCTCCCTACGTCACTACACTAGAGACCCTGGACAAA
TACAACTGTGACTTCTGTGTTACGGCAATGACATCACCTGACTGTAGATGGCCGGGACACCTATGAGGAAGTA
AAGCAGGCTGGGAGGTACAGAGAATGCAAGCGCACGCAAGGGGTGTCCACCACAGACCTCGTGGGCGCGATGCTG
CTGGTAACCAAAGCCCATCACAGCAGCCAGGAGATGTCTCTGAGTACCGGGAGTATGCAGACAGTTTGGCAAG
TGCCCTGGTGGGCGGAACCCCTGGACCGGGGTATCCCAGTTCCTGCAGACATCTCAGAAGATCATCCAGTTTGCT
TCTGGGAAGGAGCCCCAGCCAGGGGAGACAGTATCTATGTGGCTGGTGCCTTCGACCTGTTCCACATCGGGCAT
GTGGACTTCTCGGAGAAGGTGCACAGGCTGGCAGAGAGGCCCTACATCATCGCGGGCTTACACTTTGACCAGGAG
GTCAATCACTACAAGGGGAAGAATAACCCCATCATGAATCTGCATGAACGGACTCTGAGCGTGTGGCCTGCCGG
TACGTGTCTAGAAGTGGTGATTGGAGCCCCGTACGCGGTACAGCAGAGCTCCTAAGTCACTTCAAGGTGGACCTG
GTGTGTACAGGCAAGACAGAAATTATCCCTGACAGGGATGGCTCCGACCCATACCAGGAGCCCAAGAGAAGGGC
ATCTTCCGTCAGATTGACAGTGGCAGCAACCATCACCAAAGACTCATCGTCAGCGGATTATCACAAACAXXXXXX
XXXXXGAGGCGCTAAACGAGAAGAAGGAAGCCAAGGAGCTCGCCTTCCTGGAGGTGCCAGGCAGAGGCGCACAG
CCCTGGGGAGCGCGATGGTACTTCTAACCTGGCAGAGCCCTGCCGGCCCTCCCCCTGCTCTGCTTCTGCGCCTTC
TGCGTTTGGACATAGGACTCTGCAGGGCGGCCCTCTCTAACTGGCCTGGCTCTGGAAGGGCTGGTGAGGACTCTG
CCTCTTGCCCTGCCTACAAGGTGCCCTGGTTTGCAGCAGGCTCTCCGCTCTTTCCAGCAAAGCTGCTCAGAGAGGG
TGTCACAGCACAGTGGAGAGGCCGGAAGTGAGACGGGCAGACGGCACCTGCAGCCTGAAACGCACCGCTCCTGCGT
GCGCCCCCAGCTGGTCCCCGGATGCCCCACCACCTGGACAGAGGCCACACTGACTGCCCACCCAGCTGTGGCGG
GAGGTGCAGAGCAGAGGGGCTTAGGGGACAGTGTACTGCGGTACCCCTTTAGTTCTCTGGGTGTAGACCACACCA
CCTCCCACTGGGCACCCCCCAACACGGGTGCTCTGCCACCCAGCGCTGGCTCCAGGAAAAACGCTTGCCCTTCTT
TCCCGGCAGCTTCGCCACTCTCCTTATGGACTCTGTTCTGTTGTACATGGGTGACGGAATCTCTTTGGTACAA
CCGAATAAAGCCTGGTGGCAGTGTCTGCGCGGGGCTCCCGCC

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FIGURE 5000

TGACCTGACCTCTCTCCTCTCCCCCTCACCCCTCCTGCCCCCTGGCCACTGCAGGATCAGGAGGGGAGAAGAAGGAGC
CTCTGCTGCCTCCCAGGCTGCTGGGACTGGGCTGGTTTTGTCCTTGAAGTGGTCAGGATACAGGACAAGGGCAGC
CCCACCCCATCCAGCCTGGGCTCCCCGCAGACCCTTGCTGCTCCCGTGGCCTGGACA'CGCTGGGGAGCTTCTCAC
ACCTACCCCAAGGCTGACCCTGAGGTGCTGCTGCTGGGTCTGTCTTGGCTCTGGGGTGTGCTGGGAGGGTCACCAG
GTCCCTTTTCCTTCCTGTGCCCTCTGAAAGCTAAGTGTCTGTGTGGCTGTGGAGCTCGAGGGTCTGTGAATAAAG
GCGGCGGCACTGGG

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FIGURE 5001

CCCCTACACACCGTCCGTTACCCCCGTCTCTTCCTTCTGCTTTTTCGGTTTTTGGAAAGGGATCCATCTCCAGGC
AGCCCACCCTGGTGGGGCTTGTTTCCTGAAACCATGATGTACTTTTTCATACATGAGTCTGTCCAGAGTGCTTGC
TACCGTGTTTCGGAGTCTCGCTGCCTCCCTCCCGCGGGAGGTTTTCTCCTCTTTTGGAAAATTCCGTCTGTGGGATT
TTTAGACATTTTTCGACATCAGGGGTGTCCCCCATGCTGGAAGAGGAGCTGGTGGCTGCCAGCCCTGGGGCCCG
GCACAGGCCTGGGCCTTCCCCTTCCCTCAAGCCAGGGCTCCTCCTCCTGTCGTGGGCTCATTGTGACCACTGGCC
TCTCTACAGCACGGCCTGTGGCCTGTTCAAGGCAGAACCACGACCCTTGACTCCCGGGTGGGGAGGTGGCCAAGG
ATGCTGGAGCTGAATCAGACGCTGACAGTTCTTCAGGCATTCTATTTTACAATCGAATTGAACACATTGGCCAA
ATAAAGTTGAAATTTT

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FIGURE 5002

GGCACGAGGGGGCGGCCGACGACGTTTCGTCATTTAGTGCGGGAGGGATCCTGAACCGCGCGGCCGAACCCTCCGG
TGTCCCGACCCAGGCTAAGCTTGAGCATGGCTGAGCAGGAGCCACAGCCGAGCAGCTGGCCAGATTGCAGCGG
AGAACGAGGAGGATGAGCACTCGGTCAACTACAAGCCCCGGCCAGAAAGAGCATCCAGGAGATCCAGGAGCTGG
ACAAGGACGACGAGAGCCTGCGAAAGTACAAGGAGGCCCTGCTGGGCCGCGTGGCCGTTTCCGAGACCCCAACG
TCCCCAACGTCGTGGTGACTGGCCTGACCCTGGTGTGCAGCTCGGCCCGGGCCCCCTGGAGCTGGACCTGACGG
GCGACCTGGAGAGCTTCAAGAAGCAGTCGTTTGTGCTGAAGGAGGGTGTGGAGTACCGGATAAAAAATCTCTTCC
GGGTTAACCGAGAGATAGTGTCCGGCATGAAGTACATCCAGCATACGTACAGGAAAGGCGTCAAGATTGACAAGA
CTGACTACATGGTAGGCAGCTATGGGCCCCGGGCCGAGGAGTACGAGTTCTTGACCCCGTGGAGGAGGCACCCA
AGGGTATGCTGGCCCGGGCAGCTACAGCATCAAGTCCCGCTTCACAGACGACGACAAGACCGACCACCTGTCT
GGGAGTGGAAATCTCACCATCAAGAAGGACTGGAAGGACTGAGGCCAGCCAGAGGCGGGCAGGGCAGACTGACGGA
CGGACGACGGACAGGCGGATGTGTCCCCCAGCCCTCCCTCCCATACCAAAGTGCTGACAGGCCCTCCGTG
CCCTCCACCCCTGGTCCGCTCCCTGGCTGGCTCAACCGAGTGCTCCGACCCCTCTCTCAGCCCTCCCCA
CCCACAGGCCAGCCTCCTCGGTCTCCTGTCTCGTTGCTGCTTCTGCCTGTGCTGTGGGGGAGAGAGGCCGAGC
CAGGCCTCTGCTGCCCTTTCTGTGCCCCCAGGTTCTATCTCCCGCTCACACCCGAGGCCTGGCTTCAGGAGGGA
GCGGAGCAGCCATTCTCCAGGCCCGTGGTTGCCCTGGACGTGTGCGTCTGCTGCTCCGGGTGGAGCTGGGGT
GTGGGATGCACGGCCTCGTGGGGGCGGGCCGCTCTCCAGCCCCGCTGCTCCCTGGCCAGCCCCCTTGTCGCTGT
CGGTCCCGTCTAACCATGATGCCCTTAACATGTGGAGTGTACCGTGGGGCCTCACTAGCCTCTAACTCCCTGTGTC
TGATGAGCATGTGGCCTCCCCGTCCCTTCCCCGGTGGCGAACCCAGTGACCCAGGGACACGTGGGGTGTGCTGC
TGCTGCTCCCGAGCCACCAAGTGCCCTGGCCAGCCTGCCCCCTTCCCTGGACAGGGCTGTGGAGATGGCTCCGGCG
GCTTGGGGAAAGCCAAATTGCCAAACTCAAGTCACCTCAGTACCATCCAGGAGGCTGGGTATTGTCTGCTCT
GCCTTTTCTGTCTCAGCGGGCAGTGCCAGAGCCCCACACCCCCCAAGAGCCCTCGATGGACAGCCTCACCCACC
CCACCTGGGCCAGCCAGGAGCCCCGCTGGCCATCAGTATTTATTGCCCTCCGTCCGTGCCGTCCCTGGGCCACT
GGCTGGCGCTGTTCCTCCAGGCTCTCAGTGCCACACCCCCGGCAGGCCTTCCCTGACCCAGCCAGGAACAAA
CAAGGGACCAAGTGACACATTGCTGAGAGCCGTCTCCTGTGCTTCCCCGCCCCATCCCCGGTCTTCGTGTTGT
GTCTGCCAGGCTCAGGCAGAGGCGCCTGTCCCTGCTTCTTTCTGACCGGAAATAAATGCCCTGAAGGAAAAA
AA

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FIGURE 5003

MAEQEPTAEQLAQIAAENEDEHSVNYKPPAQKSIQEIQELDKDDESLRKYKEALLGRVAVSADPNVPNVVVTGL
TLVCSSAPGPLELDLTGDLESFKKQSFVLKEGVEYRIKISFRVNREIVSGMKYIQHTYRKGVKIDKTDYMGVGSYG
PRAEYEFLLTPVEEAPKGMLARGSYSIKSRFTDDDKTDHLSWEWNLTIKKDWKD

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FIGURE 5004

CTCCGGACAGCATGAGCGTGGGCTTCATCGGCGCTGGCCAGCTGGCTTTTGCCCTGGCCAAGGCTTTCACAGCAG
CAGGCGTCTTGCTGCCCCACAAGATAATGGCTAGCTCCCCAGACATGGACCTGGCCACAGTTTCTGCTCTCAGGA
AGATGGGGGTGAAGTTGACACCCCAACAAGGAGACGGTGCAGCACAGTGATGTGCTCTTCTGGCTGTGAAGC
CACACATCATCCCTTCATCCTGGATGAAATAGGCGCCGACATTGAGGACAGACACATTGTGGTGTCTGCGCGG
CCGGCGTCACCATCAGCTCCATTGAGAAGAAGCTGTGAGCGTTTCGGCCAGCCCCAGGGTCATCCGCTGCATGA
CCAACACTCCAGTCGTGGTGCAGGAGGGGGCCACCGTGTATGCCACAGGACGCACGCCCAGGTGGAGGACGGGAG
GCTCATGGAGCAGCTGTGAGCAGCGTGGGCTTCTGCACGGAGGTGGAAGAGGACCTGATTGATGCCGTCACGGG
GCTCAGTGGCAGCGGCCCCGCTACGCATTACAGCCCTGGATGCCCTGGCTGATGGGGGTGTGAAGATGGGACT
TCCAAGGCGCTGGCAGTCCGCTCGGGGCCAGGCCCTCCTGGGGGCTGCCAAGATGCTGCTGCACTCAGAACA
GCACCCAGGCCAGCTCAAGGACAACGTGAGCTCTCCTGGTGGGGCCACCATCCATGCCTTGATGTGCTGGAGAG
TGGGGGCTTCGCTCCCTGCTCATCAACGCTGTGGAGGCCTCCTGCATCCGCACACGGGAGCTGCAGTCCATGGC
TGACCAGGAGCAGGTGTACACAGCCGCCATCAAGAAGACCATCCTGGACAAGGTGAAGCTGGACTCCCCTGCAGG
GACCGCTCTGTACCTTCTGGCCACACCAAGCTGCTCCCCCGCAGCCTGGCCCCAGCGGGCAAGGATTGACACGT
CCTGCCTGACCACCATCCTGCCACCACCTTCTTCTCTTGTCACTAGGGGGACTAGGGGGTCCCCAAAGTGGCC
CACTTCTGTGGCTCTGATCAGCGCAGGGGCCAGCCAGGGACATAGCCAGGGAGGGGCCACATCACTTCCCACTG
GAAATCTCTGTGGTCTGCAAGTGCTTCCAGCCCAGAACAGGGGTGGATTCCCCAACCTCAACCTCCTTTCTTCT
CTGCTCCCAAACCATGTCAGGACCACCTTCTCTAGAGCTCGGGAGCCCCGGAGGGTCTTACCCACTCCTACTCC
AGTATCAGCTGGCAGGGGTCCTTCTGAGAGCAAAGGTCAAGGACCCCCCTCTGTGAAGGCTCAGCAGAGGTGGG
ATCCCACGCCCCCTCCCGGCCCTCCCTGCCCTCCATTACAGGGAGAAACCTCTCCTTCCCGTGTGAGAAGGGCCA
GAGGGTCCAGGCATCCCAAGTCCAGCGTGAAGGGCCACAGCCCCCTCTTGGCTGCCAAGCACGCAGATCCCATGGA
CATTGGGGAAAGGGTCTCTTGGGCTGCTGGTGAACCTTCTGTGGCCACCACCTCCTGCTCCTGACCTCCCTGGGA
GGGTGCTATCAGTTCGTCTGGCCCTTTCAGTTTTATAAGTTGGTTTCCAGCCCCCAGTGTCTGACTTCTGTC
TGCCACATGAGGAGGGAGGCCCTGCCCTGTGTGGGAGGGTGGTTACTGTGGGTGGAATAGTGGAGGCCTTCAACTG
ATTAGACAAGGCCCGCCCACATCTTGGAGGGCATCTGCCTTACTGATTAAAATGTCAATGTAATCT

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FIGURE 5005

MEQLLSSVGFCTEVEEDLIDAVTGLSGSGPAYAFTALDALADGGVKMGLPRRLAVRLGAQALLGAAKMLLHSEQH
PGQLKDNVSSPGGATIHAIHVLESGGFRSLLINAVEASCIRTRELQSMADQEQVSPAAIKKTILDKVKLDSPAGT
ALSPSGHTKLLPRSLAPAGKD

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FIGURE 5006

GACATGGAGCTGTTCTCGCGGGCCGCCGGGTGCTGGTCACCGGGGCAGGCAAAGGTATAGGGCGCGGCACGGTC
CAGGCGCTGCACGCGACGGGCGCGGGTGGTGGCTGTGAGCCGGA~~CT~~CAGGCGGATCTTGACAGCCTTGTCGCGC
GAGTGCCCCGGGGATAGAACCCGTGTGCGTGGACCTGGGTGACTGGGAGGCCACCGAGCGGGCGCTGGGCAGCGTG
GGCCCCGTGGACCTGCTGGTGAACAACGCCGCTGTGCCCCGTGCTGCAGCCCTTCCTGGAGGTCACCAAGGAGGCC
TTTGACAGATCCTTTGAGGTGAACCTGCGTGCGGTTCATCCAGGTGTCGCAGATTGTGGCCAGGGGGCTTAATAGCC
CGGGGAGTCCCAGGGGGCCATCGTGAATGTCTCCAGCCAGTGTCCCAGCGGGCAGTAACTAACCATAGCGTCTAC
TGCTCCACCAAGGGTGCCCTGGACATGCTGACCAAGGTGATGGCCCTAGAGCTCGGGCCCCACAAGATCCGAGTG
AATGCAGTAAACCCACAGTGGTGATGACGTCCATGGGCCAGGCCACCTGGAGTGACCCCCACAAGGCCAAGACT
ATGCTGAACCGAATCCCACCTTGGAAGTTTGCTGAGGTAGAGCACGTGGTGAACGCCATCCTCTTTCTGCTGAGT
GACCGAAGTGGCATGACCACGGGTTCCACTTTGCCGGTGAAGGGGGCTTCTGGGCCTGCTTGAGCTCCCTCCACA
CACCTCAAGCCCCATGCCGTGCTCATCCTACCCCCAATCCCTCCAATAAACCTGATTCTGCTGCCCCAAAAAAA
AAAAAAAAAAAAAAAAAAAAA

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FIGURE 5007

MELFLAGRRVLVTGAGKGIGRGTVQALHATGARVVAVSRTQADLDSLRECPGIEPVCVDLGDWEATERALGSVG
PVDLLVNNAVALLQPFLEVTKEAFDRSFEVNLRAVIQVSQIVARGLIARGVPGAIVNVSSQCSQRAVTNHSVYC
STKGALDMLTKVMALELGPHKIRVNAVNPVVMTSMGQATWSDPHKAKTMLNRIPLGKFAEVEHVVNAILFLLSD
RSGMTTGSTLPVEGGFWAC

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FIGURE 5008

TCTCTGAAGTTCAGAATCGATCGAAGTGGACGGCACGCCGCGGGTGGGTGCAAGATGCCGCTGCCGGTTC
AGGTGTTTAACTTGAGGGGGCCGTGGAGCCCATGCAGATCGACGTGGACCCCCAGGAAGACCCGCAGAATGCAC
CTGACGTCAACTACGTGGTGGAGAACCCAGCCTGGATCTGGAACAGTACGCGGCCAGCTACAGCGGCCTGATGC
GCATCGAACGGCTGCAGTTCATTGCTGATCACTGCCCCACGCTGCGGGTGGAGGCCCTGAAGATGGCCCTCTCCT
TCGTGCAGAGAACCTTTAACGTGGACATGTACGAGGAGATCCACCGCAAGCTCTCAGAGGCCACCAGGGAGCTGC
AGAACGCACCCGACGCCATCCCTGAGAGCGGCGTGGAGCCCCAGCCCTGGACACGGCCTGGGTGGAGGCCACGC
GGAAGAAGGCGCTGCTGAAGCTGGAGAAGCTGGACACAGACCTGAAGAACTACAAGGGCAACTCCATCAAAGAGA
GCATCCGGCGCGGCCACGACGACCTGGGCGACCACTACCTGGACTGTGGGGACCTCAGCAACGCCCTCAAGTGCT
ATTCCCGGGCCCGGGACTACTGCACCAGCGCCAAACACGTCAACATGTGCCTCAATGTCATCAAGGTCAGCG
TCTACTTGCAGAATTGGTCTCATGTGCTCAGCTACGTACGCAAGGCTGAGTCCACCCAGAGATTGCCGAGCAGC
GAGGAGAGCGTGACAGCCAGACCCAGGCCATCCTCACCAAGCTCAAGTGTGCCGAGGCTTGGCAGAGCTGGCCG
CCAGGAAGTACAAGCAGGCTGCCAAGTGCTCCTGCTGGCTTCCTTTGATCACTGTGACTTCCCTGAGCTGCTGT
CCCCAGCAACGTGGCCATCTACGGTGGCCTGTGCGCCTTGGCTACCTTTGACCGGCAGGAGCTGCAGCGCAATG
TCATCTCCAGCAGCTCCTTCAAGTTGTTCTTGGAGCTGGAGCCACAGGTCCGAGACATCATCTTCAAATTCTACG
AGTCCAAGTACGCCTCATGTCTCAAGATGCTGGACGAGATGAAGGACAACCTGCTCCTGGACATGTATCTGGCCC
CCCATGTCAGGACCCTGTACACCCAGATTGCAACCGTGCCCTCATCCAGTATTTAGCCCCCTACGTGTCAGCCG
ACATGCATAGGATGGCGGCAGCCTTCAATACCACGGTGGCGGCCCTGGAGGACGAGCTGACGCAGCTAATCCTGG
AGGGGCTGATCAGTGCCCGTGTGGACTCACACAGCAAGATCCTATACGCCCGGGACGTGGATCAGCGCAGCACC
CCTTTGAGAAGTCTCTGTTGATGGGCAAGGAGTTCCAGCGCCGCGCCAAGGCCATGATGCTGCGGGCAGCTGTGC
TCCGCAACCAGATCCATGTCAAGTCCCCGCCAGAGAAGGGAGCCAGGGGGAGCTGACTCCAGCCAACAGCCAGT
CCCGGATGAGCACCACATGTGAGGGGTGAACCTTGGCCTCCAGGACATCTGCACCCCTCCCCACCTCCACGGA
CCTCGGACCTCCAGGCGGCTCAGTGCTGCCTGCGGCCAGCTAAGGGGCCTGGCCACTGGGTGCCACCCAGCCTG
TGTGCCCTCCCTGGGGCTGAGGAGGCAGGCGGCTGCTAGTTGTGGCCCTTCCTGGAAGGAGAGGCCTGCAGGGCT
CGACCCTGTGGGTTTCTGTCCCCAGGGAGCAGACTGTGCGGCACCCAGGCCAGTGGCACCATTTCCCAGACCC
TCCTGTTCCCGCCTCAGTCAGGTGCAGACAAGTGGGCGGTGTCCATTAAAGAGCAGACTCAGCGTT

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FIGURE 5009

MEVDGTPRRGGCKMPLPVQVFNLQGAVEPMQIDVDPQEDPQNAPDVNYVVENPSLDLEQYAASYSGLMRIERLQF
IADHCPTLRVEALKMALS FVQRTFNVD MYEEIHRKLSEATRELQNAPDAIPESGVEPPALDTAWVEATRKKALLK
LEKLD TDLK NYKGNSIKESIRRGHDDLGDHYLDCGDL SNALKCYSRARDYCTSAKHVINMCLNVIKVS VYLQNW S
HVLSYVSKAESTPEIAEQRGERDSQTQAILTKLKCAAGLAELAARKYKQAAKCLLLASFDHCD FPELLSPSNVAI
YGGLCALATFDRQELQRNVISSSSFKLFLELEPQVRDIIFKFYESKYASCLKMLDEMKNLLLD MYLAPHVRTLY
TQIRNRALIQYFSPYVSADMRMAAAFNTTVA ALEDELTQLILEGLISARVDSH SKILYARDVDQ RSTTFEKSLL
MGKEFQRRAKAMMLRAAVLRNQIHVKSPPREGSQGELTPANSQSRMSTNM

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FIGURE 5010A

ACGGCAGCGGGCCCCGGCCTCCCTCTCCGCCGCGCTTCAGCCTCCCGCTCCGCCGCGCTCCAGCCTCGCTCTCCGC
CGCCCCGACCCGCCGCCGCCCTCACCAGAGCAGCCATGGAGGAGGTGGTGATTGCCGGCATGTCCGGGAAGCT
GCCAGAGTCGGAGAACTTGCAGGAGTTCTGGGACAACCTCATCGGCGGTGTGGACATGGTCACGGACGATGACCG
TCGCTGGAAGGCGGCTCTACGGCCTGCCCGGCGGTCCGGCAAGCTGAAGGACCTGTCTAGGTTTGTATGCCTCCT
TCTTCGGAGTCCACCCCAAGCAGGCACACACGATGGACCCTCAGCTGCGGCTGCTGCTGGAAGTCACCTATGAAG
CCATCGTGGACGGAGGCATCAACCCAGATTCACTCCGAGGAACACACACTGGCGTCTGGGTGGGCGTGAGCGGCT
CTGAGACCTCGGAGGCCCTGAGCCGAGACCCCGAGACACTCGTGGGCTACAGCATGGTGGGCTGCCAGCGAGCGA
TGATGGCCAACCGGCTCTCCTTCTTCTTCGACTTCAGAGGGCCAGCATCGCACTGGACACAGCCTGCTCCTCCA
GCCTGATGGCCCTGCAGAAGCCTACCAGGCCATCCACAGCGGGCAGTGCCCTGCCGCCATCGTGGGGGGCATCA
ATGTCTGTGTAAGCCCAACACCTCCGTGCAGTTCTTGAGGCTGGGGATGCTCAGCCCCGAGGGCACCTGCAAGG
CCTTCGACACAGCGGGGAATGGGTACTGCCGCTCGGAGGGTGTGGTGCCGTCCTGCTGACCAAGAAGTCCCTGG
CCCGGCGGGTGTACGCCACCATCCTGAACGCCGGCACCAATACAGATGGCTTCAAGGAGCAAGGCGTGACCTTCC
CCTCAGGGGATATCCAGGAGCAGCTCATCCGCTCGTTGTACCAGTCGGCCGGAGTGGCCCCCTGAGTCATTTGAAT
ACATCGAAGCCCACGGCACAGGCACCAAGGTGGGCGACCCCCAGGAGCTGAATGGCATCACCCGAGCCCTGTGCG
CCACCCGCCAGGAGCCGCTGCTCATCGGCTCCACCAAGTCCAACATGGGGCACC CGGAGCCAGCCTCGGGGCTGG
CAGCCCTGGCCAAGGTGCTGCTGTCCCTGGAGCACGGGCTCTGGGCCCCAACCTGCACTTCCATAGCCCCAACCC
CTGAGATCCCAGCGCTGTTGGATGGGCGGCTGCAGGTGGTGACCAGCCCCCTGCCCGTCCGTGGCGGCAACGTGG
GCATCAACTCCTTTGGCTTCGGGGGCTCCAACGTGCACATCATCTGAGGCCAACACGCAGCCGCCCCCGCAC
CCGCCCCACATGCCACCTGCCCGCTGCTGCTGCGGGCCAGCGGACGCACCCCTGAGGCGGTGCAGAAGCTGCTGG
AGCAGGGCCTCCGGCACAGCCAGGACCTGGCTTTCCTGAGCATGCTGAACGACATCGCGGCTGTCCCCGCCACCG
CCATGCCCTTCCGTGGCTACGCTGTGCTGGGTGGTGAGCGGTTGGCCAGAGGTGCAGCAGGTGCCCGCTGGCG
AGCGCCCGCTCTGGTTCACTGCTCTGGGATGGGCACACAGTGGCGCGGGATGGGGCTGAGCCTCATGCGCCTGG
ACCGCTTCCGAGATTCCATCCTACGCTCCGATGAGGCTGTGAAGCCATTCCGGCCTGAAGGTGTACAGCTGCTGC
TGAGCACAGACGAGAGCACCTTTGATGACATCGTCCATTCTGTTTGAGCCTGACTGCCATCCAGATAGGCCTCA
TAGACCTGCTGAGCTGCATGGGGCTGAGGCCAGATGGCATCGTCGGCCACTCCCTGGGGGAGGTGGCCTGTGGCT
ACGCCGACGGCTGCCTGTCCCAGGAGGAGCCGTCCTCGCTGCCTACTGGAGGGGACAGTGCATCAAAGAAGCCC
ATCTCCCGCCGGGCGCCATGGCAGCCGTGGGCTTGCTGGGAGGAGTGTAAACAGCGCTGCCCCCGGGCGTGG
TGCCCGCCTGCCACAACCTCCAAGGACACAGTACCATCTCGGGACCTCAGGCCCGGTGTTTGAGTTCGTGGAGC
AGCTGAGGAAGGAGGTGTGTTTGCCAAGGAGGTGCGGACCGCGGTA TGGCCTTCCACTCCTACTTCATGGAGG
CCATCGCACCCCCACTGCTGCAGGAGCTCAAGAAGGTGATCCGGGAGCCGAAGCCAGTTTACGCCGCTGGCTCA
GCACCTCTATCCCCGAGGCCAGTGGCACAGCAGCTGGCACGCACGTCTCCGCCGAGTACAATGTCAACAACC
TGGTAGGCCCTGTGCTGTTCCAGGAGGCCCTGTGGCAGTGCCTGAGCACGCGGTGGTGTGAGATCGCGCCCC
ACGCCCTGCTGCAGGCTGTCTTGAAGCGTGGCTGAAGCCGAGCTGCACCATCATCCCCCTGATGAAGAAGGATC
ACAGGGACAACCTGGAGTTCTTCTGGCCGGCATCGGAGGCTGCACCTCTCAGGCATCGACGCCAACCCCAATG
CCTTGTTCCACCTGTGGAGTTCCAGCTCCCCGAGGAATCCCTCATCTCCCCACTCATCAAGTGGGACCACA
GCCTGGCCTGGGACGTGCCGGCCGCCGAGGACTTCCCCAACGGTTAGGTTCCCCCTCAGCCGCCATCTACAACA
TCGACACCAGCTCCGAGTCTCCTGACCACTACCTGGTGGACCACACCCTCGACGGTTCGCTCTTCCCCGCCA
CTGGCTACCTGAGCATAGTGTGAAGACGCTGGCCCGCGCCCTGGGCCTGGGCGTCGAGCAGCTGCCTGTGGTGT
TTGAGGATGTGGTGTGCTGCACCAGGCCACCATCTGCCAAGACTGGGACAGTGTCCCTGGAGGTACGGCTCCTGG
AGGCCTCCCGTGCCTTCGAGGTGTGAGAGAACGGCAACCTGGTAGTGAGTGGGAAGGTGTACAGTGGGATGACC
CTGACCCCAGGCTCTTCGACCACCCGAAAGCCCCACCCCCAACCCACGGAGCCCCCTCTTCTGGCCAGGCTG
AAGTTTACAAGGAGCTGCGTCTGCGTGGCTACGACTACGGCCCTCATTTCCAGGGCATCCTGGAGGCCAGCCTGG
AAGGTGACTCGGGGAGGCTGCTGTGGAAGGATAACTGGGTGAGCTTCATGGACACCATGCTGCAGATGTCCATCC
TGGGCTCGGCCAAGCACGGCCTGTACCTGCCACCCGTGTACCGCCATCCACATCGACCTGCCACCCACAGGC
AGAAGCTGTACACACTGCAGGACAAGGCCCAAGTGCTGACGTGGTGGTGAGCAGGTGGCTGAGGGTACAGTGG
CCGGAGGCGTCCACATCTCCGGGCTCCACACTGAGTCGGCCCCGCGGCGGCAGCAGGAGCAGCAGGTGCCATCC
TGGAGAAGTTTGTCTTCACTCCCCACACGGAGGAGGGGTGCTGTCTGAGCGCGCTGCCCTGCAGGAGGAGCTGC
AACTGTGAAGGGGCTGGTGCAGGCACTGCAGACCAAGGTGACCCAGCAGGGGCTGAAGATGGTGGTGGCCGAC

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FIGURE 5010B

TGGATGGGGCCCAGATCCCCCGGGACCCCTCACAGCAGGAAGTGGCCCGGCTGTTGTGCGGCTGCCTGCAGGCTTC
AGCTCAACGGGAACCTGCAGCTGGAGCTGGCGCAGGTGCTGGCCCAGGAGAGGCCCAAGCTGCCAGAGGACCCTC
TGCTCAGCGGCCTCCTGGACTCCCCGGCACTCAAGGCCTGCCTGGACACTGCCGTGGAGAACATGCCAGCCTGA
AGATGAAGGTGGTGGAGGTGCTGGCTGGCCACGGTCACTGTATTCCCGCATCCCAGGCCTGCTCAGCCCCCATC
CCCTGCTGCAGCTGAGCTACACGGCCACCGACCGCCACCCCGAGGCCCTGGAGGCTGCCAGGCCGAGCTGCAGC
AGCACGACGTTGCCAGGGCCAGTGGGATCCCGCAGACCCTGCCCCAGCGCCCTGGGCAGCGCCGACCTCCTGG
TGTGCAACTGTGCTGTGGCTGCCCTCGGGGACCCGGCCTCAGCTCTCAGCAACATGGTGGCTGCCCTGAGAGAAG
GGGGCTTTCTGCTCCTGCACACACTGCTCCGGGGGACCCCTCGGGGACATCGTGGCCTTCTCACCTCCACTG
AGCCGCAGTATGGCCAGGGCATCCTGAGCCAGGACGCGTGGGAGAGCCTCTTCTCCAGGGGTGTCGCTGCGCCTGG
TGGGCCTGAAGAAGTCTTCTACGGCTCCACGCTCTTCTGTGCCGCGGCCACCCCGCAGGACAGCCCCATCT
TCCTGCCGGTGGACGATACCAGCTTCCGCTGGGTGGAGTCTCTGAAGGGCATCCTGGCTGACGAAGACTCTTCCC
GGCCTGTGTGGCTGAAGGCCATCAACTGTGCCACCTCGGGCGTGGTGGGCTTGGTGAAGTGTCTCCGCCGAGAGC
CCGGCGGGAACCGCCTCCGGTGTGTGCTGCTTCCAACCTCAGCAGCACCTCCACGTCGCCGAGGTGGACCCGG
GCTCCGCAGAACTGCAGAAAGGTGTTGCAGGGAGACCTGGTGATGAACGTCTACCGCGACGGGGCCTGGGGGGCTT
TCCGCCACTTCTGCTGGAGGAGGACAAGCCTGAGGAGCCGACGGCACATGCCCTTGTGAGCACCTCACC CGG
GGGACCTGTCTCCATCCGCTGGGTCTGCTCCTCGCTGCGCCATGCCCAGCCCACCTGCCCTGGCGCCAGCTCT
GCACGGTCTACTACGCCTCCCTCAACTTCCGCGACATCATGCTGGCCACTGGCAAGCTGTCCCCTGATGCCATCC
CAGGGAAGTGGACCTCCCAGGACAGCCTGCTAGGTATGGAGTTCTCGGGCCGAGACGCCAGCGGCAAGCGTGTGA
TGGGACTGGTGCCTGCCAAGGGCCTGGCCACCTCTGTCTGCTGTACCGGACTTCTCTGGGATGTGCCTTCCA
ACTGGACGCTGGAGGAGGCGGCCTCGGTGCCGTGCTGCTACAGCACGGCCTACTACGCGCTGGTGGTGGCTGGGC
GGGTGCGCCCCGGGGAGACGCTGCTCATCCACTCGGGCTCGGGCGGCGTGGGCCAGGCCGCCATCGCCATCGCCC
TCAGTCTGGGCTGCCGCGTCTTACCACCGTGGGGTCCGCTGAGAAGCGGGCGTACCTCCAGGCCAGGTTCCCCC
AGCTCGACAGCACAGCTTCGCCAACTCCCGGGACACATCCTTCGAGCAGCATGTGCTGTGGCACACGGGCGGGA
AGGGCGTTGACCTGGTCTTGAACCTCTTGGCGGAAGAGAAGCTGCAGGCCAGCGTGAGGTGCTTGGCTACGCACG
GTCGCTTCTGGAATTTGGCAAATTCGACCTTTCTCAGAACCACCCGCTCGGCATGGCTATCTTCTGAAGAACG
TGACATTCCACGGGGTCTACTGGATGCGTTCTTCAACGAGAGCAGTGTGCTGACTGGCGGGAGGTGTGGGCGCTTG
TGCAGGCCGGCATCCGGGATGGGGTGGTACGGCCCTCAAGTGCACGGTGTTCATGGGGCCCAGGTGGAGGACG
CCTTCCGCTACATGGCCCAAGGGAAGCACATTGGCAAAGTCGTGTCGAGGTGCTTGCAGGAGAGCCGAGGACG
TGCTGAAGGGGGCCAAACCAAGCTGATGTGCGCCATCTCCAAGACCTTCTGCCCGGCCACAAGAGCTACATCA
TCGCTGGTGGTCTGGGTGGCTTCGGCCTGGAGTTGGCGCAGTGGCTGATACAGCGTGGGGTGCAGAAGCTCGTGT
TGACTTCTCGCTCCGGGATCCGGACAGGCTACCAGGCCAAGCAGGTCCGCCGCTGGAGGCGCCAGGGCGTACAGG
TGCAGGTGTCCACAGCAACATCAGCTCACTGGAGGGGGCCCGGGGCTCATTGCCGAGGCGGCGCAGCTTGGGC
CCGTGGGCGGCGTCTTCAACCTGGCCGTGGTCTTGAGAGATGGCTTGCTGGAGAACCAGACCCAGAGTTCTTCC
AGGACGTCTGCAAGCCCAAGTACAGCGGCACCCTGAACCTGGACAGGGTGACCCGAGAGGCGTGCCCTGAGCTGG
ACTACTTTGTGGTCTTCTCCTCTGTGAGCTGCGGGCGTGGCAATGCGGGACAGAGCAACTACGGCTTTGCCAATT
CCGCCATGGAGCGTATCTGTGAGAAACGCCGGCACGAAGGCCCTCCAGGCCCTGGCCGTGCAGTGGGGCGCCATCG
GCGACGTGGGCATTTTGGTGGAGACGATGAGCACCAACGACACGATCGTCAGTGGCACGCTGCCCCAGCGCATGG
CGTCTGCCTGGAGGTGCTGGACCTTCTCTGAACCAGCCCCACATGGTCTGAGCAGCTTTGTGCTGGCTGAGA
AGGCTGCGGCCTATAGGGACAGGGACAGCCAGCGGGACCTGGTGGAGGCCGTGGCACACATCCTGGGCATCCGCG
ACTTGGCTGCTGTCAACCTGGACAGCTCACTGGCGGACCTGGGCCTGGACTCGCTCATGAGCGTGGAGGTGCGCC
AGACGCTGGAGCGTGAGCTCAACCTGGTGTGCTGCTGCGCGAGGTGCGGCAACTCACGCTCCGGAAACTGCAGG
AGCTGTCTCAAAGGCGGATGAGGCCAGCGAGCTGGCATGCCCCACGCCCAAGGAGGATGGTCTGGCCAGCAGC
AGACTCAGCTGAACCTGCGCTCCCTGCTGGTGAACCCGAGGGCCCCACCTGATGCGGCTCAACTCCGTGCAGA
GCTCGGAGCGGCCCTGTTCTGGTGCACCCAATCGAGGGCTCCACCACCGTGTTCACAGCCTGGCCTCCCGGC
TCAGCATCCCCACCTATGGCCTGCAGTGCACCCGAGCTGCGCCCCCTTGACAGCATCCACAGCCTGGCTGCTACT
ACATCGACTGCATCAGGCAAGTGCAGCCCGAGGGCCCCTACC GCGTGGCCGGCTACTCTACGGGGCCTGCGTGG
CCTTTGAAATGTGCTCCCAGCTGCAGGCCAGCAGAGCCAGCCCCACCCACAACAGCCTCTTCTGTTTCGACG
GCTCGCCACCTACGTACTGGCCTACACCCAGAGCTACCGGGCAAAGCTGACCCAGGCTGTGAGGCTGAGGCTG

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FIGURE 5010C

AGACGGAGGCCATATGCTTCTTCGTGCAGCAGTTACGGACATGGAGCACAACAGGGTGCTGGAGGCGCTGCTGC
CGCTGAAGGGCCTAGAGGAGCGTGTGGCAGCCGCCGTGGACCTGATCATCAAGAGCCACCAGGGCCTGGACCGCC
AGGAGCTGAGCTTTGCGGCCCGGTCCCTTCTACTACAAGCTGCGTGCCGCTGAGCAGTACACACCCAAGGCCAAGT
ACCATGGCAACGTGATGCTACTGCGCGCCAAGACGGGTGGCGCCTACGGCGAGGACCTGGGCGCGGACTACAACC
TCTCCCAGGTATGCGACGGGAAAGTATCCGTCCACGTCATCGAGGGTGACCACCGCACGCTGCTGGAGGGCAGCG
GCCTGGAGTCCATCATCAGCATCATCCACAGCTCCCTGGCTGAGCCACGCGTGAGCGTGCGGGAGGGCTAGGCCC
GTGCCCCCGCCTGCCACCGGAGGTCACTCCACCATCCCCACCCACCCACCCACCCCGCCATGCAACGGGAT
TGAAGGGTCTGCGGGTGGGACCCCTGTCCGGCCAGTGCCACTGCCCCCGAGGCTGCTAGATGTAGGTGTTAGG
CATGTCCCACCCACCCGCCGCTCCACGGCACCTCGGGGACACCAGAGCTGCCGACTTGAGAGACTCCTGGTCTG
TGAAGAGCCGGTGGTGCCCGTGCCCGCAGGAACTGGGCTGGGCCTCGTGCGCCCGTGCGGGTCTGCGCTTGGTCTT
TCTGTGCTTGGAATTTGCATATTTATTGCATTGCTGGTAGAGACCCCAAGGCCTGTCCACCCTGCCAAGACTCCTC
AGGCAGCGTGTGGGTCCCGCACTCTGCCCCATTTCCCCGATGTCCCTGCGGGCGCGGGCAGCCACCCAAGCCT
GCTGGCTGCGGCCCCCTCTCGGCCAGGCATTGGCTCAGCCCGCTGAGTGGGGGGTCTGTGGGCCAGTCCCCGAGGA
GCTGGGCCCCTGACAGGCACACAGGGCCCGGCCACCCAGCGGCCCCCGCACAGCCACCCGTGGGGTGCTGC
CCTTATGCCCGGCGCCGGGCACCAACTCCATGTTTGGTGTGTGTCTGTGTGTGTTTTTCAAGAAATGATTCAAAT
TGCTGCTTGGATTTTGAATTTACTGTAAGTGTGAGTGTACAGTCTGGACCCCGTTTCATTTTTACACCAATTT
GGTAAAAATGCTGCTCTCAGCCTCCCACAATTAAACCGCATGTGATCTCC

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FIGURE 5011

CAGGGAGTGCCTGCAGCACCCCGGCGGGGCCACCCAGTCTGCGTGACACGAGGGATGAGGTGACGGGTGAAGC
TGCCCTGCGGGGCACGACGCTGCAGTCGCTGGGCCTGACCGGGGCAGCGCCACCATCAGGTTTGTCATGAAGTG
CTACGACCCCGTGGGCAAGACCCAGGAAGCCTGGGCTCGTCAGCGTCGGCTGGCCAGGCAGCCGCCAGCGCTCC
ACTTCCCTTGGAATCTGGGGAGCTCAGCCGCGGCGACTTGAGCCGTCCGGAGGACGCGGACACCTCAGGGCCCTG
CTGCGAGCACACTCAGGAGAAGCAGAGCACAAGGGCACCCGAGCTGCCCCCTTTGTTCTTTCTCGGGTGGGGG
ACAGAGACTGGGGGGCCCTCCTGGGCCACGAGGCCTCTGACATCATCTTCAGCTAAGTTGCCGAAGTCCCTCTC
CAGCCCTGGAGGCCCTCCAAGCCAAAGAAGTCCAAGTCGGGCCAGGATCCCCAGCAGGAGCAGGAGCAGGAGCG
GGAGCGGGATCCCCAGCAGGAGCAGGAGCGGGAGCGGCCGTGGACCGGGAGCCCGTGGACCGGGAGCCGGTGGT
GTGCCACCCCGACCTGGAGGAGCGGCTGCAGGCCTGGCCAGCGGAGCTGCCTGATGAGTTCTTTGAGCTGACGGT
GGACGACGTGAGAAGACGCTTGGCCCAGCTCAAGAGTGAGCGGAAGCGCCTGGAAGAAGCCCCCTTGGTGACCAA
GGCCTTCAGGGAGGCGCAGATAAAGGAGAAGCTGGAGCGCTACCCAAAGGTGGCTCTGAGGGTCTGTTCCTCGA
CCGCTACGTCTTACAGGGCTTCTTCCGCCCCAGCGAGACAGGTGGGGGACTTGCGAGACTTCGTGAGGAGCCACC
TGGGGAACCCCGAGCTGTCATTTTACCTGTTTCATACCCCTCCAAAAACAGTCCTGGACGACCACACGCAGACCC
TCTTTCAGGCGAACCTCTTCCCGGCCGCTCTGGTGCACTTGGGAGCCGAAGAGCCGGCAGGTGTCTACCTGGAGC
CTGGCCTGCTGGAGCATGCCATCTCCCCATCTGCGGCCGATGTGCTGGTGGCCAGGTACATGTCCAGGGCCGCCG
GGTCCCCCTTCCCCATTGCCAGCCCCTGACCCTGCACCTAAGTCTGAGCCAGCTGCTGAGGAGGGGGCGCTGGTCC
CCCCTGAGCCCATCCCAGGGACGGCCAGCCCGTGAAGAGGAGCCTGGGCAAGGTGCCCAAGTGGCTGAAGCTGC
CGGCCAGCAAGAGGTGAGAGCTGCCAGCCTGAGGTGCCCCACTCCGCCAGCCACAGGACCACCTCCTCTGCCAGCA
GGAATAAAGACTTGTGCATCCCTC

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FIGURE 5012

MKCYDPVGKTPGSLGSSASAGQAAASAPLPLESGELSRGDLSPEDADTSGPCCEHTQEKQSTRAPAAAPFVPFS
GGGQRLGGPPGPTRPLTSSSAKLPKSLSSPGGP SKPKKSKSGQDPQQEQEQERERDPQQEQERERPVDPREVDRE
PVVCHPDLEERLQAWPAELPDEFFELTVDDVRRRLAQLKSERKRLEEAPLVTKAFREAQIKEKLERYPKVALRVL
FPDRYVLQGFFRP SETGGGLARLREEPPGEPRVILPVHHP SKNSPGRPHADPLSGEPLPGRSGALGSRRAGRCL
PGAWPAGACHLPICGRCAGGQVHVQGRRVPFPIASP

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FIGURE 5013

GACCCCTCCTCCTGTAGAGAGTGGTGCTGCCCTCTCGGGATGTACCTGCAGGTGGAGACCCGCACCAGCTCCCGC
CTCCATCTGAAGAGGGCTCCAGGCATCCGGTCCCTGGTCCCTGCTGGTTGGAATCTTGTCGATTGGCCTGGCTGCT
GCCTACTACAGCGGAGATAGCCTGGGCTGGAAGCTCTTCTACGTCACAGGCTGCCTGTTTGTGGCTGTGCAGAAC
TTGGAGGACTGGGAGGAAGCCATCTTCGACAAGAGCACAGGGAAGGTTGTTTTGAAGACGTTACGCTCTACAAG
AAGCTGCTGACTCTTTTCAGAGCTGGCCACGACCAGGTGGTGGTCCCTGCTCCATGATGTCCGTGATGTGAGCGTG
GAGGAGGAGAAGGTCCGGTACTTCGGGAAAGGCTACATGGTGGTGCTCCGGCTTGCACGGGCTTCTCCACCCCC
CTCACGCAGAGTGCAGTCATGGGCCACCGCAGTGATGTGGAAGCATCGCCAAGCTCATCACCAGCTTCTTGGAGC
TGCACTGCCTTGAGAGCCCCACAGAGCTGTCTCAGAGCAGCGACAGTGAGGCCGGTGACCCCTGCAAGCCAGAGCT
GACAGCCCCACTGTGCCTGAGCCCCGTGCACCGCCCACAGGACCCATGGCACATTCCCCTGTGCCTGAGCCCCGTG
CACCGCCCCACAGGACCCGTGGCACATTCCCCTGTGCCTGAGCCCCGTGCACCGCCCCACAGGACCCGTGGCACATT
CCCCGTGTGCCTGAGCCCCGTGCACCGCCCCACAGGACCCGTGGCACATTCCCCTGTGCCTGAGCCCCGTGCACCGC
CCACAGGACCCGTGGCCTTGGCTTCAGTTGGTGCCTCCAGCCGAGTTGGCTATTGCCTGCTCATGCTGCTGCTT
GCACACTGCATGAAACAGCAGGCCAGACCAGGACATCCAGACTTTCTCCATCGTGAGGCCTGGGCCTGCCTTTCT
GCAGCCGGAGGTCTCGCCAGCCCTGGACTCCTGCTTTGGGCCACAGCAAGACCTCGGGCGAGTGAGAGAGCGGGG
CCAGGCCGGGCCCTTGTGGGTGCTGATGCTGCATGTTGTCCCCGACACAGCGTCCCTCTCCCTGGTGGACATCCCC
AGCGGTGAGGTGCTTCCCCAAGGGCAGTGAGGGGTGAACATCCAGGGCCTACCTGGCTGTGCACGCTGCAGCCAC
ACTGTGGAAGCTGCCCCCTCCCCGAGGACCCGCTCCCTTGCTGATGCCAGGATCTCAGCGCATAGACCACTCTGC
CCCAGCGGTGCTCACAGAAAGGTCTCTCTGTTCCCTCACACTCAGCTTCAGCATAAGCTGTGAGGCCAGAAAAAAG
GTCAGCTCTTCTAGTATCGTGCAGTGCTTAAAAACCGGGAGCTCCAGCCGGGCGCAGTGGTTCATGCCAGTAATC
CCAGCACTTTTCGGAGGCCGAGGTGGGAGGATTGCTTGAGGCCAGGAGTTCAAGACCAGCCTGGGCAACACAGCAA
GATCCTGTCTTTGTAAAAAACTAACCAAACAGGAAAACTGGGAGATTTTCTGCAGAAATTGAGTTCAGCCTC
TCTCGAACCTGGGAAGACCTGGCAGGAGGGGGCTGGGCTCTCGGCTACAGACTTCTCCCCACCCCGTAGGAGCTG
AACGCCAACCATCCTGACCCGCCAGTGCTCTTGGTCTCCTGAGTGTACCCAGGTCTCCAGGTGCGGTGTGCAC
CGAGCGCGCTGGCCTGATGCCCTGGCCTGTGAGCTGGGGACTCCTGGGCCCTGTGAGCCCCTAGGCGCAGGCCC
AGGAATGGCTGGGTAGGACAGGGAACACCTTTGCCCCACGTCTGGCTGTGACCTCGGTGAAAGCCGACAGGAGAG
AGATGGACCCCTCCTCCTCAGTAGTGGCTGCCAGTCCCTCGTTGCAGGACAGGGTCATCATAACCATAAATAACCC
TTCACGTGTC

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FIGURE 5014

GCGTCGGGGGAGGACAACAAAGGGCCGCGGGCGGGCGGGCAGTGGTGTCCCAGTCTCCCGGTGCTTCCCTGAGGCT
GAGGCGCCCGGCCTCCCGCCCGCCGCGCTCCAGATGAAGTGTGAGCACTGCACGCGCAAGGAATGTAGTAAGAAA
ACAAAACTGATGACCAAGAGAATGTGTGAGCCGATGCACCGAGTCCAGCCCAGGAAAATGGAGAGAAGGGAGAA
TTCCACAAGTTGGCTGATGCCAAGATATTTTTGAGCGACTGCCTGGCATGTGACAGCTGTATGACTGCAGAGGAA
GGAGTCCAACCTTTCCAGCAAAATGCCAAGGACTTCTTCCGCGTTCTGAACCTTAACAAGAAATGTGATACCTCA
AAGCACAAAGTGCTGGTAGTGTCTGTGTGTCCTCAATCTTTGCCTTATTTTGCTGCTAAATTCAACCTCAGTGTA
ACTGATGCATCCAGAAGACTCTGTGGTTTCCCAAAAGTCTTGGGGTGCACTATGTATTTGATACGACGATAGCT
GCGGATTTTAGTATCCTGGAGAGTCAAAAAGAAATTCGTGCGTCTGCTATCGCCAGCACAGTGAGGAGGAACGCACC
CTGCCCATGCTGACCTCTGCCTGTCTGGCTGGGTCCGATACGCCAGCGGGTGCTGGGTGCGCCCATCACTGCC
CACCTCTGCACCGCCAAGTCCCCCAGCAGGTCATGGGCTCTTTGGTGAAGGATTATTTGCGCCAGACAGCAGAAC
CTGTCTCCAGAGAAGATTTTCCACGTCATTGTGGCCCCCTTGTATGACAAGAAGCTGGAGGCTCTTCAGGAAAGC
CTTCCCCCTGCTTTGCATGGCTCCCGGGGCGCTGACTGCGTGTTAACATCAGAAATTAGCCAGGCGTGGTGGTGC
ACACCTGTGATCACAGCTACTCGGGAGGCTGCGGCAAGAGAATCACTTGAACCCGGGAGGCAGAGGTTACAGCGA
GACAAGATTGCACCACTGGACTCCAGCCTGGGCGGGCGGAGGTGAAATTGCTCAAATAATGGAGCAAGGTGACCTC
TCAGTGAGAGATGCTGCCGTCGACACTCTGTTTGGAGACTTGAAGGAGGACAAAGTGACGCGTCATGATGGAGCC
AGCTCAGACGGGCACCTGGCACACATCTTCAGACATGCGGCCAAGGAGCTGTTCAACGAGGATGTGGAGGAGGTC
ACTTACCGAGCCCTGAGAAACAAAGACTTCCAAGAGGTACCCCTTGAGAAGAACGGAGAGGTGGTGTACGCTTT
GCTGCAGCCTATGGCTTTGAAACATCCAGAACATGATCCTGAAGCTTAAGAAGGGCAAGTTCCCATTCCACTTT
GTGGAGGTCTCGCCTGTGCTGGAGGATGCTTAAATGGCAGAGGCCAAGCCCAGACTCCAGACGGACATGCGGAT
AAGGCCCTGCTGCGGCAGATGGAAGGCATTTACGCTGACATCCCTGTGCGGCGTCCGGAGTCCAGTGCACACGTG
CAGGAGCTGTACCAGGAGTGGCTGGAGGGGATCAACTCCCCAAGGCCCGAGAGGTGCTGCATACCACGTACCAG
AGCCAGGAGCGTGGCACACACAGCCTGGACATCAAGTGGTGAAGTCAGGCCAGGGCCTTCCAGCTGCTCTTGGGG
CCAGAGCCAAGAGCCTCTCAGTAGAGGGAGGGGCTGCCCTGAGTGGAGTATTAAGACACTTAAGAAAACCGCTC
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 5015

MKCEHCTRKECSKKTCTDDQENVSADAPSPAQENGEGEFHKLADAKIFLSDCLACDSCMTAEEGVQLSQQNAKD
FFRVLNLNKKCDTSKHKVLVSVCPQSLPYFAAKFNLSVTDASRRLCGFLKSLGVHYVFDTTIAADFSILESQKE
FVRRYRQHSEEERTLPMLTSACPGWVRYAERVLGRPITAHLC TAKSPQQVMGSLVKDYFARQQNLSPEKIFHVIV
APCYDKKLEALQESLPPALHGSRGADCVL TSEISQAWWCTPVITATREAAAARESLPGRQRLQRDKIAPLDSSLG
GGGEIAQIMEQGDL\$VRDAAVDTLFGDLKEDKVTRHDGASSDGH LAHIFRHA AKELFNEDVEEV TYRALRNKDFQ
EVTLEKNGEVVLRF AAAYGFRNIQNMILKLKKGKFPFHFVEVLACAGGC INGRGQAQTPDGHADKALLRQMEGIY
ADIPVRRPESSAHVQELYQEWLEGINSPKAREVLHTTYQSQERGTHSLDIKW

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FIGURE 5016

CGTCAAGCTTGGCACGAGGCCATGGAGCAGCTGCTGCGCGCCGAGCTGCGCACCCGCGACCCCTGCGGGCCTTCGGC
GGCCCCGGCGCCGGCTGCATCAGCGAGGGCCGAGCCTACGACACGGACGCAGGCCCAGTGTTCGTCAAAGTCAAC
CGCAGGACGCAGGCCCCGGCAGATGTTTGAGGGGGAGGTGGCCAGCCTGGAGGCCCTCCGGAGCACGGGCCTGGTG
CGGGTGCCGAGGCCCATGAAGGTCATCGACCTGCCGGGAGGTGGGGCCGCCTTTGTGATGGAGCATTGAAGATG
AAGAGCTTGAGCAGTCAAGCATCAAACTTGGAGAGCAGATGGCAGATTTGCATCTTTACAACCAGAAGCTCAGG
GAGAAGTTGAAGGAGGAGGAGAACACAGTGGGCCGAAGAGGTGAGGGTGCTGAGCCTCAGTATGTGGACAAGTTC
GGCTTCCACACGGTGACGTGCTGCGGCTTCATCCCGCAGGTGAATGAGTGGCAGGATGACTGGCCGACCTTTTTTC
GCCCCGCACCGGCTCCAGGCGCAGCTGGACCTCATTGAGAAGGACTATGCTGACCGAGAGGCACGAGAACTCTGG
TCCCGGCTACAGGTGAAGATCCCGGATCTGTTTTGTGGCCTAGAGATTGTCCCCGCGTTGCTCCACGGGGATCTC
TGGTCGGGAAACGTGGCTGAGGACGACGTGGGGCCCATTTATTTACGACCCGGCTTCCTTCTATGGCCATTCCGAG
TTTGAAGTGGCAATCGCCTTGATGTTTGGGGGGTTCCCCAGATCCTTCTTCACCGCCTACCAACCGGAAGATCCCC
AAGGCTCCGGGCTTCGACCAGCGGCTGCTGCTCTACCAGCTGTTTAACTACCTGAACCACTGGAACCACTTCGGG
CGGGAGTACAGGAGCCCTTCCTTGGGCACCATGCGAAGGCTGCTCAAGTAGCGGGCCCTGCCCTCCCTTCCCCTG
TCCCCGTCCCCGT

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FIGURE 5017

MEQLLRAELRTATLRAFGGPGAGCISEGRAYD TDAGPVFVKVNRRTQARQMFEGEVASLEALRSTGLVRVPRPMK
VIDLPGGGAAAFVMEHLKMKSLSSQASKLGEQMADLHLYNQKLREKLKEEENTVGRRGEGAEPQYVDKFGFHTVTC
CGFIPQVNEWQDDWPTFFARHRLQAQLDLIEKDYADREARELWSRLQVKIPDLFCGLEIVPALLHGDWLSGNVAE
DDVGPIIYDPASFYGHSEFELAIALMFGGFPRSFFTAYHRKIPKAPGFDQRLLLYQLFNYLNHWNHFGREYRSPS
LGTMRRLK

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FIGURE 5018

GACACTATCCGTGCGGCCAGGCGGAGACCCGGAGGACCGAAGCTTCCGGACGACGAGGAACCGCCCAACATGGCC
TCGGAGAGTGGGAAGCTTTGGGGTGGCCGTTTGTGGGTGCAGTGGACCCCATCATGGAGAAGTTCAACGCGTCC
ATTGCCTACGACCGGCACCTTTGGGAGGTGGATGTTCAAGGCAGCAAAGCCTACAGCAGGGGCTGGAGAAGGCA
GGGCTCCTCACCAAGGCCGAGATGGACCAGATACTCCATGGCCTAGACAAGGTGGCTGAGGAGTGGGCCCAGGGC
ACTTTCAAACCTGAACTCCAATGATGAGGACATCCACACAGCCAATGAGCGCCGCCCTGAAGGAGCTCATTGGTGCA
ACGGCAGGGAAGCTGCACACGGGACGGAGCCGGAATGACCAGGTGGTCACAGACCTCAGGCTGTGGATGCGGCAG
ACCTGCTCCACGCTCTCGGGCCTCCTCTGGGAGCTCATTAGGACCATGGTGGATCGGGCAGAGGCGAACGTGATG
TTCTCTTCCCGGGGTACACCCATTTCAGAGGGGCCAGCCCATCCGCTGGAGCCACTGGATTCTGAGCCACGCCG
TGGCACTGACCCGAGACTCTGAGCGGCTGCTGGAGGTGCGGAAGCGGATCAATGTCTCTGCCCTGGGGAGGTGGG
GCCATTGCAGGCAATCCCCCTGGGTGTGGACCGAGAGCTGCTCCGAGCAGAACTCAACTTTGGGGCCATCACTCTC
AACAGCATGGATGCCACTAGTGAGCGGGACTTTGTGGCCGAGTTTCTGTCTGGGCTTCGCTGTGCATGACCCAT
CTCAGCAGGATGGCCGAGGACCTCATCCTCTACTGCACCAAGGAATTCAGCTTCGTGCAGCTCTCAGATGCCTAC
AGCACGGGAAGCAGCCTGATGCCCCAGAAGAAAAACCCCGACAGTTTGGAGCTGATCCGGAGCAAGGCTGGGCGT
GTGTTTGGGCGGTGTGCCGGGCTCCTGATGACCCTCAAGGGACTTCCCAGCACCTACAACAAAGACTTACAGGAG
GACAAGGAAGCTGTGTTTGAAGTGTGAGACACTATGAGTGCCGTGCTCCAGGTGGCCACTGGCGTCATCTCTACG
CTGCAGATTACCAAGAGAACATGGGACAGGCTCTCAGCCCCGACATGCTGGCCACTGACCTTGCCATTACCTG
GTCCGCAAAGGGATGCCATTCCGCCAGGCCCACGAGGCCTCCGGGAAAGCTGTGTTTATGGCCGAGACCAAGGGG
GTCGCCCTCAACCAGCTGTCACTGCAGGAGCTGCAGACCATCAGCCCCCTGTTCTCGGGCGACGTGATCTGCGTG
TGGGACTACGGGCACAGTGTGGAGCAGTATGGTGCCCTGGGCGGCACTGCGCGCTCCAGCGTCTGACTGGCAGATC
CGCCAGGTGCGGGCGCTACTGCAGGCACAGCAGGCCTAGGTCTCTCCACACCTGCCCCCTAATAAAGTGGGCGCG
AG

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FIGURE 5019

GCGGACCCAGAGAGCCCTGAGCAGCCCCGCCGTGCCGGCCTAGTTACCGTCATACCACGGGAGGAGCCGCAGC
TGCCGCAGCCGGCCCCAGTCTCCATCACCAGCAACCAATGAGCAGCAAGGCCGAGACCCAGCAGCCACCCGCCGCC
CCCGCCTTTCCCCCACCAGCCCCCTCCCGTCCCCCGCCGCCCGCCCTCAGCGCCGCCGACACCAAGCCCGG
CACTACGGGCAGCTGCGCAGGGAGCGGTGGTCCGGCGGCCCTCACATCGCGGGCGCCTGCCAGCGTGGACAAGAA
GGTCATCGCAGTGAAGGTTTTGGGAACAGTAAATGGTTCAATGTAAGGAACGGATATGGTTTCATCAACAGGAA
TGACACCAAGGAAGATGTATTTGTACACCAGACTGCCATAAAGAATAACCCAGGAAGTACCTTCGCAGTGTAGG
AGATGAAGAGACTGTGGAGTTTGTATGTTGTTGAAGGAGAAGAGGGGTGCGGAGGCAGCAAATGTTACAGATCCTGG
TGGTGTTCAGTTCAAGGCAGTAAATATGCAGCAGATCGTAACCATTATAGACGCTATCCACGTCATAGGGGTCC
TCCACGCAATTACCAGCAAAATTACCAGAACAGTGAGAGTGGGGAAAAGACCGAGGGATCGGAGAATGCTCCCGA
AGGCCAGGCCCAACAATGCCGGCCCTACCGCAGGCAAAAGGTTCCACCTTACTACATGTGGAGACCCTGTGGGTG
TCGACCACAGTATTCAGCCCTCCTGTGCAGGGAGAAGTGATGGAGGGTGCTGACAACCAGGGTGCAGGAGAACA
AGGTAGACCAGTGAGGCAGAATATGTATCGGGATATAGACCACGATTCCGCAGGGGCCCTCCTTGCCAAAGACA
GCCTAGAGAGTACGGCAATGAAGAAGATAAAATCAAGGAGATGAGACCCAGGGTCAGCAGCCACCTCAACGTCGG
TACCGCAGCAACTTCAATTACCAACGCAGATGCCAGAAAACCTAAATCACAAGATGGCAAAGAGACAAAATCA
GCCAATCCACCAGCTGAGAATTCGTCTGCTCCCGAGGCTGAGCAGGGCGGGGCTGAGTAAATGCCGGCTTACCAT
CTCTACCATCATCCGGTTTAGTCATCCAACAAGAAGAAATATGAAATTCAGCAATAAGAAATGAACAAAAGATT
GGAGCTGAAGACCTTAAGTGCTTGCTTTTTGCCCGTTGACCAGATAAATAGAACTATCTGCATTATCTATGCAGC
ATGGGGTTTTTATTATTTTACCTAAATATGTCTTTTTGGTAATAACAAACGTGTTTTTTTTTAAAGCCTTG
TTTTTCTCAATACGCCTTTAAAGGTTTTTAAATTGTTTCATATCTGGTCAAGATGAGATTTTTTAAAGCACTTTATT
TTTAATTTGTAATAAAAGTTTACAACCTGATTTTTTCAAAAAAGTCAACAACTGCAAGCACCTGTTAATAAAGG
TCTTAAATAATAATAATAAAAA

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FIGURE 5020

CCGCGCCACTTGGCCTGCCTCCGTCCCGCCGCGCCACTTCGCCTGCCTCCGTCCCCCGCCCGCCGCGCCATGCCT
GTGGCCGGCTCGGAGCTGCCGCGCCGGCCCTTGCCCCCGCCGACAGGAGCGGGACGCCGAGCCGCGTCCGCCG
CACGGGGAGCTGCAGTACCTGGGGCAGATCCAACACATCCTCCGTGCGGCGTCAGGAAGGACGACCGCACGGGC
ACCGGCACCCTGTCGGTATTTCGGCATGCAGGCGCGCTACAGCCTGAGAGATGAATTCCTCTGCTGACAACCAAA
CGTGTGTTCTGGAAGGGTGTTTTGGAGGAGTTGCTGTGGTTTATCAAGGGATCCACAAATGCTAAAGAGCTGTCT
TCCAAGGGAGTGAAAATCTGGGATGCCAATGGATCCCGAGACTTTTGGACAGCCTGGGATTCTCCACCAGAGAA
GAAGGGGACTTGGGCCCAGTTTATGGCTTCCAGTGGAGGCATTTTGGGGCAGAATACAGAGATATGGAATCAGAT
TATTCAGGACAGGGAGTTGACCAACTGCAAAGAGTGATTGACACCATCAAAACCAACCCTGACGACAGAAGAATC
ATCATGTGCGCTTGGAAATCCAAGAGATCTTCCTCTGATGGCGCTGCCTCCATGCCATGCCCTCTGCCAGTTCTAT
GTGGTGAACAGTGAGCTGTCTGCCAGCTGTACCAGAGATCGGGAGACATGGGCCTCGGTGTGCCTTTCAACATC
GCCAGCTACGCCCTGCTCACGTACATGATTGCGCACATCACGGGCCTGAAGCCAGGTGACTTTATACACACTTTG
GGAGATGCACATATTTACCTGAATCACATCGAGCCACTGAAAATTCAGCTTCAGCGAGAACCCAGACCTTTCCCA
AAGCTCAGGATTCTTCGAAAAGTTGAGAAAATTGATGACTTCAAAGCTGAAGACTTTTCAGATTGAAGGGTACAAT
CCGCATCCAACCTATTAAAAATGGAATGGCTGTTTAGGGTGCTTTCAAAGGAGCTCGAAGGATATTGTCAGTCTTT
AGGGGTTGGGCTGGATGCCGAGGTAAAAGTTCTTTTGTCTAAAAAGAAAAGGAAGTAAAGTCAAAAAATCTGTCC
GTGACCTATCAGTTATTAATTTTAAAGGATGTTGCCACTGGCAAAATGTAAGTGTGCCAGTTCTTTCCATAATAAA
AGGCTTTGAGTTAACTCACTGAGGGTATCTGACAATGCTGAGGTTATGAACAAAGTGAGGAGAATGAAATGTATG
TGCTCTTAGCAAAAACATGTATGTGCATTTCAATCCACGTACTTATAAAGAAGGTTGGTGAATTTACAAAGCTA
TTTTTGGAATATTTTAGAATATTTTAAGAATTTACAAAGCTATTCCCTCAAATCTGAGGGAGCTGAGTAACACC
ATCGATCATGATGTAGAGTGTGGTTATGAACTTAAAGTTATAGTTGTTTTATATGTTGCTATAATAAAGAAGTG
TTCTGC

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FIGURE 5021

TAAAAACAGGGAATGACTCTACTAATGATGGGGTCAGCAGATGCTCTTCCAGAAGAACCCTCAGCCAAAACCTGTC
TTCGTAGAAGACATGACAGAAGAACAGTTAGCATCTGCTATGGAGTTACCATGTGGATTGACAAACCTTGGTAAAC
ACTTGTTACATGAATGCCACAGTTCAGTGTATTCTGTTCTGTGCCTGAACTCAAAGATGCCCTTAAAAGGTATGCA
GGTGCCCTTGAGAGCTTCAGGGGAAATGGCTTCAGCGCAGTATATTACTGCAGCCCTTAGAGATTTGTTTGATTCC
ATGGATAAAACCTTCTTCCAGTATTCCACCTATTATTCTACTGCAGTTTTTGACATGGCTTTCCACAGTTTGCC
GAGAAAGGTGAACAAGGACAGTATCTTCAACAGGATGCTAATGAATGTTGGATACAAATGATGCGAGTATTGCAA
CAGAAATTGGAAGCAATAGAGGATGATTCTGTTAAAGAGACAGACTCCTCATCTGCATCGGCAGCGACACCTTCT
AAAAAGAAAAGTTTAAATCGATCAGTTCCTTCGGTGTTGAGTTTGAAACTACCATGAAATGTACAGAATCTGAAGAA
GAAGAAGTCACCAAAGGAAAGGAAAATCAACTTCAGCTTAGCTGTTTTATCAATCAGGAAGTCAAGTATCTTTTT
ACAGGACTTAAATTGCGACTTCAGGAAGAAATCACCAAACAGTCTCCAACGTTGCAAAGAAATGCCTTGATATC
AAATCTTCCAAGATCAGCCGGCTGCGCTGCTTACTTGACCATTAGATGGTTCGATTTTTTATAAAGAGAAGGAA
TCTGTGAATGCCAAAGTTCCTAAGGATGTTAAATTTCTCTTATGTTGGATATGTATGAAGTGTGACACCAGAA
CTTCAAGAGAAAATGGTGTCTTTTCGATCCAAATTCAGGATCTAGAAGATAAAAAAGTGAATCAGCAGCCAAAT
ACAAGTGACAAAAGAGTAGTCCCCAGAAAGTAAAGTATGAACCCCTTTCTTTTGCTGATGATATTGGCTCC
AATAATTGTGGATACTATGACTTACAAGCAGTACTAACACACCAGGGAAGGTCTAGTTCTTCAGGTCATTATGTA
TCATGGGTGAAAAGGAAACAAGATGAATGGATTAAGTTTGATGATGACAAAGTCAGCATCGTAACACCAGAAGAT
ATCTTACGGCTTTCTGGTGGTGGAGACTGGCATATCGCTTACGTTCTACTCTATGGGCCTCGCAGAGTTGAAATA
ATGGAAGAGGAAAGTGAACAGTAATCTTCATTTTAGTATTTATGCTTAGATGTGAAAATAAATGTTATTTGTTGA
TCATTTCTATAATCCAGAGCTTTAGAGGAAGACACATAGGTGGGTTTATGTTTCACCTCATTGGAACAAAAGAG
GACAGAAGCAGACCACTCTGTGCACCAACCTAAAAAATTACAGAGAAGAGAAAAATTATCTTTGGATTGTGCTGCC
CTATATAAAGGTGGCAGAAAGACATTTTTAAAAAGCTTATTATTTCTTGCAATTTTTAAAAAGTTTCAGAGTTGA
AATGCCTTTCAACCATTTCTTCTGTGGTCAATTTTCTTGCTGCCTTTTTACCCAAGATTCAGCAGTCAGATGT
TTACTGCACACCTATTACCTATTATTTGCTGTTCTTGATGGTTCAAACCACCATCTGTAGCCACCCATCCTTT
GCCTTATCTAACAAACATTTTCCAGGAAGGTGGAAGGAAGTGTGCTCTCATTGTGTGACTCAGTGCTGCTG
TCCATCCCATGGAACATGGGCACAATCAAGTATTTGTCCAGCCTATTGCAGGCTTTTCTGACTTTAAATAAA
TTGTGATCAATAATAGTACCTTTGATTATACATTTATTATTGTGTCTCTCTCTGATGTACTGTGGATTGTACATT
TAACTTTGGAATGGCTTTGTAATAATCAGTCTTAAGAAAAATGTTGACAAGCTCTGGTTGCTTATTTTTAGAAAAT
GAGGACATTTAATAATAATAAAAAAAGGGATTAATAGCTTTTGACCTCAAGTCTTTGTCTCTGAGTGTGG
AGCTTGGCTGAAGACATGTTTAATACTGTACAATTTCTGAAGATGGTTATTAACACTGTGCTGTAAAGCATCCAT
TTAAAAATATGTTATCTTCTTTGCCTGCC

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FIGURE 5022

GGTATTCAGGAAGGAACACAATGTACCAAATGTAAAAATAACTGGGCACTGAAGTTTTCTATCATATTATTATAC
ATTTTGTGTGCCTTGCTAACAATCACAGTAGCCATTTTGGGATATAAAGTTGTAGAGAAAATGGACAATGTCACA
GGTGGCATGGAACATCTCGCCAAACCTATGATGACAAGCTCACAGCAGTGGAAAGTGACCTGAAAAAATTAGGT
GACCAAACCTGGGAAGAAAGCTATCAGCACCAACTCAGAACTCTCCACCTTCAGATCAGACATTCTAGATCTCCGT
CAGCAACTTCGTGAGATTACAGAAAAACCAGCAAGAACAAGGATACGCTGGAGAAGTTACAGGCGAGCGGGGAT
GCTCTGGTGGACAGGCAGAGTCAATTGAAAGAACTTTGGAGAATAACTCTTCTCTCATCACCCTGTAAACAAA
ACCCTCCAGGCGTATAATGGCTATGTCACGAATCTGCAGCAAGATACCAGCGTGCTCCAGGGCAATCTGCAGAAC
CAAATGTATTCTCATAATGTGGTCATCATGAACCTCAACAACCTGAACCTGACCCAGGTGCAGCAGAGGAACCTC
ATCAGCAATCTGCAGCGGTCTGTGGATGACACAAGCCAGGCTATCCAGCGAATCAAGAACGACTTTCAAATCTG
CAGCAGGTTTTTCTTCAAGCCAAGAAGGACACGGATTGGCTGAAGGAGAAAGTGACAGAGCTTGACAGCGCTGGCT
GCCAACAACCTCTGCGTTGGCCAAAGCCAACGACACCCCTGGAGGATATGAACAGCCAGCTCAACTCATTACACA
GGTCAGATGGAGAACATCACCCTATCTCTCAAGCCAACGAGCAGAACCTGAAAGACCTGCAGGACTTACACAAA
GATGCAGAGAATAGAACAGCCATCAAGTTCAACCAACTGGAGGAACGCTTCCAGCTCTTTGAGACGGATATTGTG
AACATCATTAGCAATATCAGTTACACAGCCCACCACCTGCGGACGCTGACCAGCAATCTAAATGAAGTCAGGACC
ACTTGCACAGATACCCTTACCAAACACACAGATGATCTGACCTCCTTGAATAATACCCCTGGCCAACATCCGTTTG
GATTCTGTTTTCTCTCAGGATGCAACAAGATTGTATGAGGTGAGAGTTAGACACTGAAGTAGCCAACCTTATCAGTG
ATTATGGAAGAAATGAAGCTAGTAGACTCCAAGCATGGTCAGCTCATCAAGAATTTTACAATACTACAAGGTCCA
CCGGGCCCCAGGGGTCCAAGAGGTGACAGAGGATCCCAGGGACCCCTGGCCCCAACTGGCAACAAGGGACAGAAA
GGAGAGAAGGGGGAGCCTGGACCACCTGGCCCTGCGGGTGAGAGAGGCCAATTGGACCAGCTGGTCCCCCGGA
GAGCGTGGCGGCAAGGATCTAAAGGCTCCCAGGGCCCCAAAGGCTCCCGTGGTTCCCTGGGAAGCCCGGCCCT
CAGGGCTCCAGTGGGGACCCAGGCCCCCGGGCCACCAGGCAAGAGGGACTCCCCGGCCCTCAGGGCCCTCCT
GGCTTCCAGGGACTTCAGGGCACCGTTGGGGAGCCTGGGGTGCTGGACCTCGGGGACTGCCAGGCTTGCTGGG
GTACCAGGCATGCCAGGCCCCAAGGGCCCCCGGCCCTCCTGGCCCCATCAGGAGCGGTGGTGCCCTGGGCCTGC
AGAATGAGCAACCCAGCACCGGAGGACAATGGCTGCCCGCCTCACTGGAAGAACTTCACAGACAAATGCTACTA
TTTTTCAGTTGAGAAAGAAATTTTGAGGATGCAAAGCTTTTCTGTGAAGACAAGTCTTCACATCTTGTTTTCAT
AAACACTAGAGAGGAACAGCAATGGATAAAAAACAGATGGTAGGGAGAGAGCCACTGGATCGGCCTCACAGA
CTCAGAGCGTGAAAAATGAATGGAAGTGGCTGGATGGGACATCTCCAGACTACAAAAATTGGAAAGCTGGACAGCC
GGATAACTGGGGTCATGGCCATGGGCCAGGAGAAGACTGTGCTGGGTTGATTTATGCTGGGCAGTGGAAAGATT
CCAATGTGAAGACGTCAATAACTTCATTTGCGAAAAAGACAGGGAGACAGTACTGTATCTGCATTATAACGGAC
TGTGATGGGATCACATGAGCAAATTTTCAGCTCTCAAAGGCAAGGACACTCCTTTCTAATTGCATCACCTTCTC
ATCAGATTGAAAAAAAAAAGCACTGAAAACCAATTACTGAAAAAAATTGACAGCTAGTGTTTTTTACCATCCG
TCATTACCCAAAGACTTGGAATAAAATGTTCCCAGGGTGATATGCTGATTTTCATTGTGCACATGGACTGAA
TCACATAGATTCTCTCCGTGAGTAACCGTGCGATTATACAAATTATGCTCTTCAAAGTATGGAACACTCCAATC
AGAAAAAGGTTATCATTGGTCTGAGTTATGGGAAGAACTTAAGCATATACTGTGTAAACAGTGCCATACATTT
CTAAAAATCCCAAGTGAGGAAAAATATGCAGACATACAGATATATAGGCCAACTATTAGTAATAATATGAAATAT
ACTTAAAGAGCTTTTAAACTTTGTATTTTTGTACAAAATATTTGTCTTTTACAATTTTTTCTTTTTTTTTTT
TTGTCATTTTTACCGACATAATACATGGAGCCAAAGAAAAAATAATGGTACTAATAAAAACCTCCTAGGGTTTCT
GTCAGATTTAATTCTACCCAGTGGCAAAGAATTTTTTCAATTGTGGCTTTAAAAAAATAATTAAATATACATGTA
TATATATAT

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[illegible]

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FIGURE 5024

MKRSSVSSGGAGRLSMQELRSQDVNKQGLYTPQTKEKPTFGKLSINKPTSERKVSFLFGKRTSGHGSRNSQLGIFS
SSEKIKDPRPLNDKAFIQQCIRQLCEFLTENG YAHNVSMKSLQAPSVKDFLKIFTFLYGFLCPSYELPDTKFEEE
VPRIFKDLGYPFALSKSSMYTVGAPHTWPHIVAALVWLIDCIKIH TAMKESSPLFDDGQPWGEETEDGIMHNKLF
LDYTIKCYESFMSGADSFDEMNAELQSKLKDLFNVD AFKLESLEAKNRALNEQIARLEQEREKEPNRLESRLK
ASLQGDVQKYQAYMSNLESHSAILDQKLNLGLNEEIARVELECETIKQENTRLQNIIDNQKYSVADIERINHERNE
LQQTINKLTKDLEAEQQKLWNEELKYARGKEA IETQLAEYHKLARKLKLIPKGAENSKGYDFEIKFNPEAGANCL
VKYRAQVYVPLKELLNETEEEINKALNKKMGLED TLEQLNAMITESKRSVRTLKEEVQKLDDLYQQKIKEAEED
EKCASELESLEKHKHLLLESTVNQGLSEAMNELDAVQREYQLVVQTTTEERRKVGNNLQRLLEMVATHVGSVEKHL
EEQIAKVDREYEECMSEDLSENIKEIRDKYEKKATLIK SSEE

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FIGURE 5025A

GAGAAGAAGTGGCAGGTGATGCTGAAGCGGGGAGAAGCGGCAGAGCCGGCCACACAGTGCAGGGGATGGAGACA
GGTGTCTGGGCTGGTCTCTCTGCAGCATCCTCAGTTGTTGGAGGGCAGTCATCCTCAGGCCGTACCCAGCCAGAGA
AGAAAAAGAACAGTGTGAAGCCACGTGTGATAGCCGTCCAACATCGGCTCTTCCCTCCAATTACATTGTAGTTGA
TTGTAGTCTCAAACCATGAATTATGTGGGACAGCTGGCTGGGCAGGTGATTGTCACTGTGAAGGAAGTCTACAAG
GGCATTAAACCAGGCCACCCTCTCTGGGTGCATTGATGTCATCGTGGTACAGCAGCAGGATGGCAGCTATCAGTGT
TCACCTTTTACGTTTCGGTTTGGAAAGCTGGGAGTCTTGAGATCCAAAGAGAAAGTGATTGATATAGAAATCAAC
GGCAGTGCAGTGGATCTTCACATGAAGTTGGGTGATAACGGAGAAGCTTTCTTTGTTGAGGAGACTGAAGAAGAA
TATGAAAAGCTTCCTGCTTACCTTGCCACCTCACCATTCTACTGAAGATCAGTTCTTTAAAGATATTGACACC
CCTTTGGTGAAATCGGGTGGAGATGAAACACCATCTCAGAGTTCAGACATCTCACACGTCTTGAAACAGAGAGA
ATTTTTACTCCAAGTTCTGTGAAAAAGAAAAACGAAGGAGAAAGAAATACAAACAGGACAGTAAGAAGGAAGAG
CAGGCCGCATCTGCTGCTGCAGAAGACACATGTGATGTAGGCGTGAGCTCCGATGATGACAAGGGGGCCAGGCA
GCACGAGGATCTTCAAATGCTTCCTTGAAAGAAGAAGATGTAAAGAGCCTTTGCTCTTCCATTCTGGGGATCAT
TACCCCTTATCTGATGGAGATTGGTCCCCCTTAGAGACCACCTATCCCCAGACAGCGTGTCTTAAGAGTGATTCA
GAGCTGGAGGTGAAACCTGCGGAGAGCCTGCTCAGATCAGAGTCTCAGATGGAGTGGACGTGGGGCGGATTCCCA
GAGTCCACCAAGGTGAGCAAAAGAGAACGATCTGACCATCATCCTAGGACAGCTACAATTACACCATCAGAAAAT
ACTCATTTTCGGGTAATTCCAGTGAGGACAACCTCATCAGTGAAGTTGAGAAGGATGCTTCCATGGAAGACACT
GTCTGTACCATAGTGAAGCCCAAACCCAGAGCCCTGGGTACACAGATGAGCGACCCAAACATCTGTGGCAGAGCTT
CTCGAACCTCCTCTTGAGAGTACTCAGATTTTATCTATGTTAGATGCTGACCACCTTCCCAACGCAGCCTTAGCG
GAGGCGCCCTCAGAAATCCAAACCGGCAGCTAAAGTAGACTCGCCGTCAAAGAAGAAAGGTGTTCAAAAAGAAGC
CAACACCAGGGACCTGATGATATTTACCTTGATGACTTAAAGGGTCTAGAACCTGAAGTTGCAGCTCTTTATTTT
CCTAAAAGTGAATCGGAGCCCGGTTCCAGGCAGTGGCCCCGAGTCTGACACACTCTCTGGCTCCCAGTCCCCACAG
TCCGTGGGAAGCGCAGCTGCAGATAGCGGCACCGAGTGCCTCTCAGATTCTGCCATGGACTTGCCGTGACGTTACC
CTCTCCCTTTGCGGGGGCCTCAGTGAATAAGGAGAAATTTCAAAGAAAAATTCATGGAGCATATCATTACTTAT
CACGAATTTGCAGAAAACCTTGACTTATAGACAATCCTAACCTTGTAATAAGGATATATAATCGTTACTATAAC
TGGGCTTTGGCAGCTCCCATGATCCTTAGCTTGCAAGTATTCAGAAGAGCTTGCCCTAAGGCCACAGTTGAGTCC
TGGGTGAAAGACAAGATGCCAAAGAAATCTGGTTCGCTGGTGGTTTTGGCGAAAGAGAGAAAGCATGACCAAACAG
CTGCCAGAAATCCAAGGAGGGAAAATCTGAGGCACCGCCAGCCAGTGACCTGCCATCCAGCTCCAAGGAGCCGGCC
GGTGCCAGGCCCGGCCGAGAATGACTCCTCGAGTGACGAGGGATCACAGGAGCTCGAAGAATCCATCACAGTGGAC
CCCATCCCCACAGAGCCCCTGAGCCACGGCAGCACAACCTTCATATAAGAAGTCTCTCCGCCTCTCCTCAGACCAG
ATCGCAAACTGAAGCTCCACGATGGCCCAAATGATGTTGTGTTTAGTATTACAACCCAGTATCAAGGCACCTGT
CGCTGTGCAGGGACCATTTACCTGTGGAATGGAATGACAAGATCATCATTTCTGATATTGATGGGACAATAACC
AAGTCGGATGCTTTGGGACAGATTCTCCACAGCTGGGCAAAGACTGGACCCACCAGGGTATAGCAAAGCTCTAC
CATTCATCAATGAGAATGGCTACAAGTTTCTGTACTGCTCGGCTCGTGCCATCGGCATGGCCGACATGACCCGT
GGCTACCTGCATGGGTCAATGACAAGGGCACAATCTTGCCCCGGGGCCCCCTGATGCTGTCCCCCAGCAGCTTG
TTCTCCGCCTTCCACAGAGAAGTGATAGAAAAGAAACAGAGAAAGTTCAAATTTGAGTGTCTAAATGATATCAAG
AATCTGTTTGCCCCGTCTAAGCAGCCCTTCTATGCTGCCTTTGGAAACCGTCCAAATGATGTCTATGCCTACACA
CAAGTTGGAGTTCCAGACTGTAGAATATTACCGTGAACCCCAAGGGTGAATTAATACAAGAAAGAACCAAAGGA
AACAAGTCATCGTATCACAGGCTGAGTGAGCTCGTGAGCATGTGTTCCCCCTTCTCAGTAAGGAGCAGAATTCC
GCTTTTCCCTGCCCCGAGTTTCTGCTACTGGCGAGACCCGATCCCTGAAGTGGACCTGGATGACCTG
TCTTGAGGCGGCACCTCAGTGGGTGGGCAGGGCTTGGTCCCCCTCCCCACAGCAAGGGAAGGCAGCTGGCTCTTC
TGCTGACCTCAGATACCAGCCTTCCCCAGCGGGGACGGGTGCTTCTGGAGCTGGTCCCGCCATCCTCCTTTGCCT
TCCCAGGCCAGCTGCTCAGGCTCGGCAGGTCTGCAGCTCAGCTCCTGGAAGGAGAAGGGAGGAAGTGGGCTGGG
GCTGGAGGCCGTTGGATCCCTCCTTTGTGGGTGCGACACATGTTTCTGCTGTGAGCTGGGGCTCCTTCCATTGC
ATCATTTTAAAGGAAGAAAAAGCAGCTAAAAAAGAGTGGACCAAAACACTGCACACAGTGAAGTGTTCCAGTTT
CCACTGGGCAGTTGAGGTGGCTTCTGTAACCAGGGCTGTCTTCAGATGTCAGGGTCCCTGAACTGCTGCGGGCCC
AGTCAGTGATGCTGGCTGAAGCTGCCTGTGCACGTTTCTTCTGCTGCTGCTCATTCTCTGCTACACTGAAGGGG
TCAGCTGCTCCAGTGGGCCAAGTTGGGCAGGACCCCCGCCCCCTGCAGGGCCCATGCACCAGAGCCACTGAGCCCA
GTCCCATAAACCTGGCCCTCTTTGGGGAAAGATCCCCACAGAGCATCCTCCTCTCATCTGTGACAACCTCACAGG

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FIGURE 5025B

CCCTTAATTTCTTAGTCTCACCAGAAGAACAGGTCTCACAAGTATATATTTGATGTCTGTAATAAAAGTGGGAA
GGTGGGTCTTAAACAGACCAAACCCCGCCCCGCCCAACAACCTCTGCTTTAGGGAGGCCTCCGAAATGCAGA
TAGGCGGTTGAGTGGGGTCTGGGAAGAGCGCTGAATCCCTCTGCTTGCCTGGTGTGGGCCCTTGGAAGCA
TCTTGCCTTGGGACAGGATTTCTAAAATTCTGTGATTGAGATTTGTCAGGGAAGCACAGTGAAGCTTGCTTAAAG
GCACTGGCCAGCAGTGTGTGACTTTGGCTTTTGGGATCACACCCTGTAATCGGGCCCGTGAAGCAGCGTCAAAG
AGGGGTCTTGGAGCTCCTATGGAGCAGACTGCCCCCGAGCAGTGTCCCCAGCCTAGCCCTGTGAGACCCCATGG
GGACACGGGTGCCTATGTATTTTCACTAAAATATACATGGTAGCTCCATTTACTGATGCGGTGTGAATGAGCTCA
CATCGTGTCTGAAGAGATGGCACCAGGGAAAGGTGTGCCATAAGCTGCTCCAGAGCTTTTGGTATGCTGAGTGTT
GACAGAGCTGCACCTTTAACATCAAGAGAAGTGTGAGGAGCCAGAACCAACCCAGGTCTTGGTCTCCATTGGC
GAGAACACAGGACGTGGTGGTTCCTGAGCAGAGAGGGATCTGCAGATACAGGCTTGGCGCTCGGGGTGGTCTCGT
GGCCAACTCTTCATGCCCCTGCCGTTGTAGTGGAACCTCTACATGTTTTAGTTTGCTTCACCTAAAATAATGCTG
ATCTAGAGATAGAGAAATAGGGGTGGTTATTTTCCAGATTGGAGAGTTGAAAGTCCCTGACTGATTTAGCCAT
TTTCTAGTGCTTGTGCGATGCAGAGACAATGTTGAAATCCCTTAAACACAGTTCTCAGTGGCAAAACCTAGGAA
GGCTCATGTTCCAGAGAAGGGACCACATGAGCCTTCTCCCATGCAAAGCTTCCCCAGCTTAAATAGTTGATAA
GGACTAATTGTTTAAATGAGTTTATTTATCTACAGTAGGTTAGGGATCCTGGGTTCGTTTATATGAAGTTCTTCC
CAGTTTGTGAATTCTAGTACAGCAGCCATGCAGCCACCTTATTTCTAGATGCCATCTGTGTGCTCTTGGACTA
CCTTCTATTTAGAGGAAGAATGAGAGCTTTGTGTGTTTAACTGAGCTTATAGTAGGACTTCTTTGCATATGTATG
GTACTGAAAAATCTTAATATACATCTTTAATCCTTTTATAGGTTGTCTTTAAAGAGTTTTTGAAGTATTTCTTTT
TCTTGACAGCTCTTCTCTTTGGACACATGGGCCTTCTTAGAGGGTTCAGTCTAGGACCCGGCTCTCCTGGCCCTG
TGTTGAGGGTAGCTGGTCCCTCTGTCCCTGTGTCTGCTAGCACTAGACTTTGTTGCTGCAGATTGATCCAGTGGG
TACATAGGCTAATTAATGTGAGTCTTTTTCTTGTGTTAAAGGAGTCCCTCTTGCTGAAAGTAGATGATTACTATT
GCTGTAGTGTTAGGAAAGTATTAAGTTTGTGTGAAAATCCATTGCCATTGGGTACAAATGACATTTGTTCTTTC
TGTGAAAGAGATGCCCTCGAGTGTGTTTGTACACAAACCCTTAGGATGGTGAGTTGAAGCATCACCCCTCGCGCTA
TCTTCAGTGACGGGTGACGGCTCAGGGAGATGGCAGGCAGATTGGGCTCTAAGTCATTATTCTCTCAGTTACTCC
ATTGGTGAAATGGCCCTTTCCCTCTTTGCAGTTCAGTCTAAGTCTCGTATTTGCTTTGCTGTCTGTGTGCTGAAG
CTCGTCCCGTGTGAGTTGCTGTCTGCCCTTGTGAGGCTGTGAGGTGCTCGTGTAGACCTGGAGCATGCAGGCTG
CCTCCGTTTTTGGGTACTGTGTTGTGTTTGTCTGTCTTAAACATCTGCATAGTTTTCAACTGGAAAAAGAAA
AACTTAAAAATGGGATGTCCTAAAATGAAAGTGTCTCAAAGTCACAGAACAACCGAGGGACAAAGGAGATTGGA
TGACTGGGAAGCGCTGGCCCGGAACAGCCCCTGCAACTGTGGGGCCTGCACACAGCCCTTCCACAGTTGGCACTG
CAGGTGCAGGCCAACCTTTAAAGAATAAACAAGGAAGTCAGTCTTTCACTTTTTACAAGTTGGCAAAACAGA
CTTCCGGGGAATTTGATGTTTTCCCGTGTGTAGAGCTTCCAGGGTTTAAATAAACTGGTTAAAAATTGAGTCT
TTCCCTGAAGTAAGTGCTCTTTCCAGATGAAAACACTACTCTTTTGGTTTTGTTTGAAGTAAGAAAGGGAGGGGAA
ACTTTGCTCTTTTAAATAATTATGTTTCAGCCTATGATGAAGTATTTGATTATTAGACAGCAATGTCTACTAATAAGT
TTTAAGTTGTCAAAGTTAATTGTAAACATCATCAGTACAGTACTCTTAGTTACAGTAAAGCAATTGTTGCAAGA
TGAATGGCTAATATTTTGGTGCAGTGTTTGATGTTCAAAACAAAATGTTACAACAATAAACGAACATAACAT

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FIGURE 5026

GAATTAAACAACCACCATGTCGAGCAAAAAGGCAAAGACCAAGACCACCAAGAAGCGCCCTCAGCGTGCAACATC
CAATGTGTTTGCCATGTTTGACCAGTCACAGATTCAGGAGTTCAAAGAGGCCTTCAACATGATTGATCAGAACAG
AGATGGCTTCATCGACAAGGAAGATTTGCATGATATGCTTGCTTCTCTAGGGAAGAATCCCACTGATGCATACCT
TGATGCCATGATGAATGAGGCCCCAGGGCCCATCAATTTACCATGTTCCCTGACCATGTTTGGTGAGAAGTTAAA
TGGCACAGATCCTGAAGATGTCATCAGAAACGCCTTTGCTTGCTTTGATGAAGAAGCAACAGGCACCATTACAGGA
AGATTACCTAAGAGAGCTGCTGACAACCATGGGGGATCGGTTTACAGATGAGGAAGTGGATGAGCTGTACAGAGA
AGCACCTATTGACAAAAAGGGGAATTTCAATTACATCGAGTTCACACGCATCCTGAAACATGGAGCCAAAGACAA
AGATGACTGAAAGAAGCTTTAGCTAAAATCTTCCAGTTACATTGTCTTACTCTCTTTTACTTCTCAGACACTTCCC
CCACCCTCATAGAACCTGTTGCATGCAACTTAGTTTACAGCTTTGCCTCTTCTTTTTGATGTATTTATTCCAGA
CCTTTCTGCCACTTAGCACTTGTATAATCAGACTGGAAATGGGGATGAGGGTGTAATTTGTATTGAAAAAGATCG
CGAATAAAAATCAACAAATGTGAAAGCCCAGAAAAATATATTCGTATTTCTGGTTTTGCTGGATTTTACATTTT
TATATAATAAAAATGTTATTTTGAATAAAGATTATGCTGACTCAAATGCAATGT

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FIGURE 5027

GAATTAAACAACCACCATGTCGAGCAAAAAGGCAAAGACCAAGACCACCAAGAAGCGCCCTCAGCGTGCAACATC
CAATGTGTTTGCCATGTTTGACCAGTCACAGATTCAGGAGTTCAAAGAGGCCTTCAACATGATTGATCAGAACAG
AGATGGCTTCATCGACAAGGAAGATTTGCATGATATGCTTGCTTCTCTAGGGAAGAATCCCACTGATGCATACCT
TGATGCCATGATGAATGAGGCCCCAGGGCCCATCAATTTACCATGTTTCTGACCATGTTTGGTGAGAAGTTAAA
TGGCACAGATCCTGAAGATGTCATCAGAAACGCCTTTGCTTGCTTTGATGAAGAAGCAACAGGCACCATTACAGGA
AGATTACCTAAGAGAGCTGCTGACAACCATGGGGGATCGGTTTACAGATGAGGAAGTGGATGAGCTGTACAGAGA
AGCACCTATTGACAAAAAGGGGAATTTCAATTACATCGAGTTCACACGCATCCTGAAACATGGAGCCAAAGACAA
AGATGACTGAAAGAACTT

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FIGURE 5028

AACCACCACCATGTCGAGCAAAAGAACAAGACCAAGACCAAGAAGCGCCCTCAGCGTGCAACATCCAATGTGTT
TGCTATGTTTGACCAGTCACAGATTCAGGAGTTCAAAGAGGCCTTCAACATGATTGATCAGAACAGAGATGGTTT
CATCGACAAGGAAGATTTGCATGATATGCTTGCTTCTTAGGGAAGAATCCAACCTGATGAGTATCTAGATGCCAT
GATGAATGAGGCTCCAGGCCCATCAATTTACCATGTTCTCACCATGTTTGGTGAGAAGTTAAATGGCACAGA
TCCTGAAGATGTCATCAGAAATGCCTTTGCTTGCTTTGATGAAGAAGCAACTGGCACCATACAGGAAGATTACTT
GAGAGAGCTGCTGACAACCATGGGGGATCGGTTTACAGATGAGGAAGTGGATGAGCTGTACAGAGAAGCACCTAT
TGATAAAAAGGGGAATTTCAATTACATCGAGTTCACACGCATCCTGAAACATGGAGCCAAAGACAAAGATGACTG
AAATAACTTCAAATTCAGCCAAACGTTCTTGTTGCCACTTTGGGTATTCTGAGATTTTCTCTTGTCATGCCCTT
AGCTTTACAGCTTTTGCAATTTCTGTTGTATTTATTCTCAGCCATTTTGGGCATATGTATCTTTATAATCAGACT
GGAAACGGGACTTTCTATTAATATCATTTTTCAGAATAAAAAATAGGGTAATTTAACCTACCAGCCCTTCTCCCC
AATAACTGTGGTCTATACAGAGTCAATATATTTTTTCAGAGAAAGTTATTCGCTCGATTTTTTCTGAATCATAAT
TAACTTTATGATAAAATA

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FIGURE 5029

MSSKRTKTKTKKRPQRATSNVFAMFDQSQIQEFKEAFNMIDQNRDGFIDKEDLHDMLASLGKNPTDEYLDAMMNE
APGPINFTMFLTMFGEKLNKTDPEDEVIRNAFACFDEEATGTIQEDYLRELLTTMGDRFTDEEVDELYREAPIDKK
GNFNYIEFTRIILKHGAKDKDD

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FIGURE 5030

ATGCACGCACACACGCATACAGACACCACACACGAGAGAGAGAGATACAAAAGCAGACCAGAGGCACCTTTTAGA
CTGACACATGAGTGGATTTCGGAGTCTGCAGGTTGCAGCAGAGGAAACTGTGAGCTGGAGAGGCAACCTCATTCT
AGCAGCGGCAGAGTTTTGGGGCCTCTTTGGAGACAGGGACGTGGGCACAGGGATCTAATGGAGACAGCCCATCAG
CCTGCAGAAGGAACCAGGTTCATTGGCCCTGGCAGATCCTTCTGCCATAGCCTGCTATTGGGTCTGATAACATC
CAGGACTCAGGACTCAGCTTTGACTTTGCTTTTGGCTGCCCCTATTTCAGACATGAACCTGAAAAAGGAGGCAACA
CTTCACGATCGTTTGAGAGAACAACACAGGCAAATTTGGAATCAGACTCTTCACATTCAAATCAAAAAGCCTC
TG TAGTTTGAACCTCAATGGAAAACATGAAAAGGTGAACAGTCAGCCAGGCAAAGGCAATCATGTTCAAGACC
TTGAGCACCTTAGACCCTGACTGTGCAAGATTTGAAGGGACGACTGCTTCTCCTAAGCCTCAGAGCCTTGCTCTT
TGCATTTCAGCAGGATAATGAATCTAGATTTTATTTCTGTTCTTTGCCAGACTTGTACAGCAGGCAAAGTGT TTG
AAAATCAAAGGAAAAGAAGATATTGACTTGGATAATCTCTTCAGAGAGGCCATGGAGGGAAACCAGGAGTGTCTC
ACTGAACTTGTGAAGAAGCCACAGCCAAGCCCTGGGGCCAGTCATCCTGCAGCAGTGACCACTCCCCGGCAGGG
AGTGCAGCCAATACAGACAGTGGTGTGGAATGACTGGCAATGCAGGGGGCAGCACTGAAGACCTCTCCAGCTTG
GACGAGGGACCTTGCAATTGCTGGCACTGGTCTGTCCACTCTTCGCCCTTGAGAACCTCAGGCTGGACCAGCTA
CATCAACTCCGGCCAATAGGGACCCGGGGTCTCAAAGTCCCAGCTTGTCCACACCGGTGAGACCTGGGTGTGG
GAGTGTGTTGCCAAAGTTGCGGACTGCCAACCACAGCTGGTACTGTCCAGGGCCTGCCCTGAGCACACTGACATCT
GCCCCTGCTGAAGATGCAAAGCCTGTTGCAGCAGGAGCTGCTGGCACCAGCCCTGATCATTCCCTCCTTTTGCAA
TGCCCTCAGCTCTTTTATTTCCATCTGTTGTTCTATGATAGGCTGCTCTCCACGTTTCTGATAATTATGGGGTA
AAACCGGGAAGGCTGCAGACATCAGAGGAGAGCTATATTTCTCTACTTTAAATGTTGCCTAAGACAAGCAAC
AAACTCAATGTACTTTGCCCTCTGAGAGAGCTCAGAATCCTTGTCTCAGGAATCATGCGATCAATGCAAAGGAG
CTCGCCATGATCGCCACCGGCGGCCTGCTAAGGATTTCCGCCAGAAAGCAGGATCCACTCCGCCCCCAAGCCAG
ATACCCAAGCGCAAGCGGAAAGCCAAGAAGAGGCGCAAGAACGACGTGGTGGTGGTTAATGTGTTTGGAGCACTA
AATACGACTTGA

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FIGURE 5031

AGAGCTTCTTTGAAGGGCAGTCTGCACCATGGGACTCGGCTAAGAAAGATGAGAACAGAATGAAGAACAGATACG
GGAATATCATTGCATACGATCATTCGAGTGAGGCTGCAGACAATAGAAGGAGACACAACTCAGACTATATCA
ATGGCAATTATATCGATGGTTATCATCGACCCAATCATTACATTGCTACCCAAGGGCCAATGCAGGAAACCATCT
ATGACTTCTGGAGGATGGTGTGGCACGAAAACACTGCAAGTATCATCATGGTGACCAATCTTGTTGGAAGTGGGAA
GGGTCAAATGCTGCAAACTACTGGCCAGATGACACAGAGATATATAAAGACATTAAAGTTACCCTAATAGAAACAG
AACTACTGGCAGAATATGTGATAAGAACATTTGCTGTTGAAAAGAGAGGTGTGCATGAAATCCGAGAGATCAGAC
AGTTTCACTTCACTGGCTGGCCGGATCATGGGGTCCCCTACCATGCCACCGGCTGCTGGGATTCTGTCGGCAAG
TCAAGTCCAAGAGCCCGCCAGTGCAGGCCCCACTGGTGGTGCAGTGCAGTGCAGGAGGAGGACTGGCTGTT
TCATCGTCATTGATATCATGTTGGACATGGCCGAAAGGGAAGGGGTCGTAGACATCTACAACCTGCGTCAGGGAGC
TGCGGTCACGGAGGGTGAACATGGTGCAAACAGAGGAGCAGTATGTGTTTATCCACGATGCGATCCTGGAAGCCT
GTCTTTGTGGGGACACCTCTGTGCTGCTTCCCAAGTTAGGTCTCTGTATTATGACATGAACAACTGGATCCAC
AGACAACTCAAGCCAGATTAAAGAGGAATTCGGACGCTAAACATGGTGACACCAACGCTGCGAGTAGAGGACT
GCAGCATCGCACTGTTGCCCGGAACCATGAGAAAAACCGGTGCATGGACATCCTGCCCCAGACCGCTGCCTGC
CCTTCTCATCACCATCGATGGGGAGAGCAGCAACTACATCAATGCTGCCCTCATGGACAGCTATAAACAGCCTT
CAGCTTTTATAGTCACCCAGCATCCTTTGCCAAACACAGTGAAAGACTTTTGGAGACTGGTCTCGGATTATCACT
GCACATCCGTAGTTATGCTAAATGATGTGGATCCTGCCAGTTGTGTCCACAGTACTGGCCAGAAAACGGAGTAC
ACAGACACGGSCCCATCCAGGTGGAATTTGTCTCTGCTGACCTGGAAGAGGACATCATCAGCAGGATATTCCGCA
TTTACAATGCCGCCAGACCCCAAGATGGATATCGGATGGTGACGAATTCAGTTCTTGGGCTGGCCGATGTACA
GGGACACACCAGTGTCTAAGCGCTCCTTCTTGAAGCTCATTCGCCAGGTGGACAAGTGGCAAGAGGAGTACAATG
GCGGGGAAGGCCGCACGGTTGTGCACTGCTTGAACGGGGGAGGCCGAGTGGGACGTTCTGCGCCATCAGCATCG
TATGTGAGATGCTCCGGCACCAGAGAACCGTGGATGTCTTTACGCTGTGAAGACACTGAGGAACAACAAGCCCA
ACATGGTCGACCTCCTGGATCAGTACAAGTTCTGCTACGAGGTGGCCCTGGAATACCTTGAATTCCTGGCTGATGGT
GTAACAGCTCTGCAAAACATCCCTTTTCATACCACAAAGCCAAGACGTTCCATGGTATTTGTGCAAAAGAGATGA
AGACTTCTCAATATGCTTATTTTGTCTTGCATAATTGGCTCTTTTTTAAGAGCCCAAGAAAGTGTCTTAAAATTG
CTTGCACTGCCCAATCCCAGTAATGCTGCTGCTGACAGAAACACACACAGCCACAGTTGCCAAATCCCGTAC
TCCTTGCCACCGGCTTCCTAGAGCAGCGTAGACAGCTGGTAAACTGAAGAGCACAACATATATTCTTATGAAGGAA
TTTGTACCTTTGGGGTATTATTTTGTGGCCCGTGACCCCTCGTTATTGTTACAGCTGAGTGTATGTTTTTGTCTG
TGGAGAAATGCTATCTGGCATTATGGTAATATATTATTTAGGTAATATTTGTACTTTAACATGTTGCATAATATA
TGCTTATGTAGCTTTCCAGGACTAACAGATAAATGTGTAATGAACAAAGATATGTTGTATGAGTCGTCGTTTCTG
TCAGATTTGTATTGTTTCCAAGGGAAAAGCTTGGGGGAGGACTCAGTTCACAAAATGCAAACTCAACGATCAGA
TTCACGGACCCAGAGCTTTTCCATGTGTTTATATTGTAAATATTTTGATTTTCATCAAAATTATTTATTCAATAAA
AGAAATTTTTGTG

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FIGURE 5032

CGGAGGGTGGGGAGCGGAAAGCAGGACGCACGGCTCCCGCGGCCCGCTGGCTGCCCTTCCCGCCAGCGCAGGTGT
GGGACGGGCGGCGGACTAGGCACAGAGCTGCGGGAGCAGGCACAGGGAGTGTGGAGCCTGGCGGCGGGACGGCGG
GATCCGGTGGGAGCCGGAGTCCCGCCGAGGGGGGCTGGAGGTGGAGGGGCGCGGCGAGGCCGCGATGAAGCCGAG
CGGCGAGGACCAGGCGGCGCTGGCGGCCGCCCCCTGGGAGGAGTGCTTCCAGGCGGCCGTGCAGCTGGCGCTGCG
GGCAGGACAGATCATCAGAAAAGCCCTTACTGAGGAAAAACGTGTCTCAACAAAAACATCAGCTGCAGATCTTGT
GACAGAAACAGATCACCTTGTGGAAGATTTAATTATTTCTGAGTTGCGAGAGAGGTTTCCTTCACACAGGTTTCAT
TGCAGAAGAGGCCGCGGCTTCTGGGGCCAAGTGTGTGCTCACCCACAGCCCGACGTGGATCATCGACCCCATCGA
CGGCACCTGCAATTTTGTGCACAGATTCCCGACTGTGGCGGTTAGCATTGGATTGCTGTTGACAAGAGCTTGA
ATTTCGGAGTGATTTACCACTGCACAGAGGAGCGGCTGTACACGGGCCGCGGGGTGCGGGCGCCTTCTGCAATGG
CCAGCGGCTCCGGGTCTCCGGGGAGACAGATCTCTAAAGGCCCTTGTTCTGACAGAAATTGGCCCCAAACGTGA
CCCTGCGACCCTGAAGCTGTTCTTGAGTAACATGGAGCGGCTGCTGCATGCCAAGGCGCATGGGGTCCGAGTGAT
TGGAAGCTCCACATTGGCACTCTGCCACCTGGCTCAGGGGCCGCGGATGCCATTACCAGTTTGGCCTGCACTG
CTGGGATCTGGCGGCTGCCACAGTCATCATCAGAGAAGCAGGCGGCATCGTGATAGACACTTCGGGTGGACCCCT
CGACCTCATGGCTTGCAGAGTGTTGCGGCCAGCACCCGGGAGATGGCGATGCTCATAGCTCAGGCCTTACAGAC
GATTAACATATGGGCGGGATGATGAGAAGTGAAGTGCAGGCTGAGGCAAAAGCTGCTCCCAAGGCCTCCCTGGGCTGCT
GTGGGCTCCTGGGGAGGTGGCCCTCGTGGGCCACGCTCCATGCCAGTGGCTCACGCTCTGCTCCTGGCTACCCCA
GAGGGAGTTGTACGCTACAGTGAGTGGCTGGCCTTTTAAATCGACGTCTCTCTCACCAGGATTTGGTGTTTAGC
TGTTTCTCTCTTTAATCTCACGTAGCCTTTTTCAGGTTAGTACGTGTTCTTCTGTGTCAGGGCCAAAACATAAATCT
CCTGTGAAATACGTATTGATAATCCAATCTTGATTTTCCCCCAGAATATAAATCTCAGGTAATAAGGCTTTAG
AACTGCTGATAAAGCGGATCGTTCTCAGGCCCTCCCCCGGAGTACTTCAGAATGCAATAAATCAAAATAATGGC

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FIGURE 5033

MKPSGEDQAALAAGPWEECFQAAVQLALRAGQIIKALTEEKRVSTKTSAADLVTETDHLVEDLIISELRRERFPS
HRFIAEEAAASGAKCVLTHSPTWIIDPIDGTCNFVHRFPTVAVSIGFAVRQELEFGVIYHCTEERLYTGRRGRGA
FCNGQRLRVSGETDLSKALVLTEIGPKRDPATLKLFLSNMERLLHAKAHGVRVIGSSTLALCHLASGAADAYYQF
GLHCWDLAAATVIIREAGGIVIDTSGGPLDLMACRVVAASTREMAMLIAQALQTINYGRDDEK

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GGCAGGATTCTGGGTACAGGTGATGAGGGATTTGAGGAATGGGGTAAACCTTAAGAAGGTCCAAGAGCGGCAGTA
CAACCCCTTTGCCCATTTGAATATCAGCTCACCCCTTATGAGATGTTAATGGATGACATTCGCTGCAAAAGATACAC
CTTGCGAAAAGTGATGGTGAATGGTGATATTCCTCCCTCGGTTAAAAAAGAGTGCTCATGAAATCATCTCGACTT
CATCAGATCCAGACCTCCTTTAAATCCAGTCTCAGCCAGAAAACCTGAAACCAACTCCACCACGGCCACGGAGCCT
CCATGAAAGAATATTAAGAAGAAATTAAGCAGAAAAGAAAGCTGCGGCCTGTATCACCAGAGGAGATTAGACGTAG
CAGATTAGATGTGACTACCCCTGAATCTACAAAGAATCTTGTTGGAGTCATCTATGGTGAATGGAGGTTTGACATC
ACAAACAAAAGAAAACGGGTAAAGTACCTCAGAGCAGGTGCCCTGCACAGCGGAAGAAGCTCCTCAGAGCCCCAAC
TCTGGCCGAACCTGGACAGCTCTGAGTCTGAGGAAGAAACGCTGCACAAGTCGACCAGCAGCAGCAGCGTGTCTCC
CTCTTTCCCTGAAGAGCCAGTCTTGAGGGCCGTGTCCACAAGGAAGAAGCCTCCAAAATTCTCTGCCATATCAT
AACACCCACAGCCAGAGAGACGGCAGCCACCCAGAGACGACATTCCATTGAAAAGGAAACGCCTACTAACGTGAG
GCAGTTCTTGCCGCTTCCAGGCAGAGTTCCTCGCTCTCTTGAGGAATTCTGCTACCCAGTGGAAATGCCTCGCTCT
TACTGTGGAAGAAGTGATGCATATTCGCCAGGTCTGGTGAAGGCAGAGCTGGAAAAATACCAACAGTATAAAGA
CATCTACACCGCCTTGAAAAAAGGAAAGCTCTGCTTTTGTGTCGAACCAGGAGGTTTTCTCTCTTCACTTGGTCT
TTATACCTGTGAGTTCTGTAAGAGGCCGGTGTGCTCAGAGTGTGCAAAAAGATGCGGCTGCCCTCCAAACCATA
CTCCACTCTTCTATCTTTTCACTTGGGACCTTCTGCTCTGCAAAAGAGGGGAAAGTAGTATGAGGTGAGAAAACC
CTCCACTGCCCATCATCGGCCACTTCGGGAGCATTGCCAGGTTCTCTCAAATCTAAGTCTATGGACAAATCAGA
TGAAGAACTCCAGTTTCCCAAAGAGTTGATGGAGGACTGGAGCACCATGGAGGTGTGTGTGGACTGCAAGAAGTT
CATTTGCGAAATCATCAGTTCAAGCCGGCGCAGTCTGGTGTGCGCAACAAAAGGGCCCCGATTGAAAAGGAAAAC
GCAGTCTTTCTACATGTCTCGCCAGGCCCTCGGAGTACTGCCCTTCAGAGAGGACGATCAGTGAGATCTGAGC
CTCGTGCCTTTTCTGCTCTTTTGTGCTACGAGTCAGCGTCCGTGCGCGAGGACACTGAGCCGGGCTGGCTCTCCT
TTCTGTGGTTTTTATTTAATGGGCTTGAATTTGCATTAGATCAGATTTTGGCCGATCACATTGTTCCACAGACTG
AATGCTGTGTTTCGTATCAGATTGATGAAACGTGACAGGTCCGCCAATTGCTCGTTTGCACTGAGAGAGGACAACAG
TTTGAAACTTACTTTTGTGTGTGTGGCTTTGGAAGCCAGTAGCTACTTCTTAGTTTCACTTCTTTACTGTTCC
TCGAATAATCTCCTGACTAAGGCAAAAAAAAAAAGCTTCTCCTACGAGAATCAGTCTAACAGAGATGCCGATGTC
AGCACAGCCCTAAGCAGTAAGTCATATTGGCATTTCACAGTGACTGTGTTTCTATCCCGTGTACAGAGAGATCCA
GAGCCCTACACTCCACGACCTGGGGGCTCACAGCACAGAACCTAGAAGCACCTGCTGACACTCTTCAACTGATTT
TTAAATGTTGTTGCTTGGAGATAAAAAATTACATAAGGGACTTTTGGCCTGCATTCTAGTGCAAAACATCTGAAGA
GCTGTACACCCACAAGGGTGACTATTTCCCTGAGTGGCCGTTGTGTCCAGTGCCCTGGTTTCACTGTCTCCTGA
GTGGATGACAGGCTTTCATTCTCTATCTTGAATGTATTATGGTTACTAATAGTTTTATAATGGAGGTCTAAGAAT
TAAAGTTGTGTGGGAGTTTCAGGACAAAGGAAGGCTAAAAGTTTGTCAAGACGTTGAGCGTATTTTGGTTACCTA
TGAGAAGGGTTGTGACAGTGTACAGTGGCAGCTGTTGGCCACGCTGCAGAAATGAGCTGGAGCTCATGGGTTTTT
AGCTACATTTTTTATAAATTTGTAGTACATCCATCTTGAGTAAATTAAGCCACAATTTGGTACCTAGGGTCTCAA
ACTAAAATTTATTTTTATAAATGAATTTTAAAAGAAAAAATATCTACTTCTTTTAAAGTTAGAAGAAAATTAAC
TGCTGACAGGCAACATTTTGGGGTGCTTTCTGCCTAGTTTTCTTGTAAATGATTTGAGTGAGTAGGTTTGGT
TTCTGACGAAAGTAGACTGGAGGGTAGCATTGTATGCCCTCAAATGTCTCAGTGTGTTTGGCTCATACGTGGGCTA
TACTGTATTATTTTGGTATGCTTACAAATGACTAACCATCAAATGTCTATTATGTTTGGAAAATCTGTTAATG
CACATGCACAATAAATTTCTGAAAGCCATAGGACATGTCTGTAGTCAGCACCACGATAGCACCCTTTCATGAAAG
GCATGGCGGCTGCATTTCTATACCACATCAAAATACAGTAACATTTCTATACTAAATTAACAGTAATACCTCAAA
CTGCTCCGGTAGTAGTTTTTAAATGGATTGAAATTTACAGTTTAGTAAAAGGCTTAAAATTACTTATACTTATGAA
ATAAACTTTACCAGTTGACTAAAATAATGCATGTTAACAGTTGGTCTGTATTGTCATGTAAGTGGGCCACCAG
AGAACCCTTATTGATTACTTAAGTGTTTACATTTATTTTAAAGACTCTGTTTAAAGAGCTTTCAGAAATTGTACTGG
GTGAATCTCATTTTATAAAATTTCTTAAAGAGACTATCTGAACCTCTATACCTCAGACAGTTAGGTGGGAGTATAAT
CTACCCCTTTTGTATGACCCAGGCTTGAGTTTTTAAATGACTACCCAGAAGGGCACAAGGGGGAAGGAAATGGT
ATTTGTATATGTATATAAATATGCACCTAGGAGAATGTGCTTTTTTAAATAATGACTACTGTTTTTATTAACA
TAAGAACTACACCCCAAAATAAGACTTTTCACTCACATTACAAAAGCAAACATCTAGTACATGTCTTTCACCTT
ACTTTATGATAGTGTATTGGATGATTTGGGCATTACGATCACCTCTTACCACAGCACAGAACATACATTTCTCAA
CAGCATTAAACGGAGTTTGCCAAGTGCAATTAAGAGGTCACGTGGAGGGTACGTTTCATATGAAACAATCTGCAGAA
AGTGGGGTAAAGAAAGGGCAGATGGCAGAGTTAAAGTTGTAGAAATCAAATTACTATCATTTTTTGTGCCAAAAC

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FIGURE 5034B

AAAGTCTTACATTTAACCCCCCTTTCTACCACCCCCCTCCACACTTCACGTCAGCTACATAGTTTCCACAGGGTA
ATTCACTAAGAGCTTGTGGAGCTTGGTTTTAAAAATCCTTAGCCTGGTCTGACTTTAGGCATAGCTTCCAGTTCTT
CCTTCCGTGTCCTGGTTTCTGTTCAGTTTTACTTCTAATCCAACAACAAAAGAAATGTCTGGCTGGTCTCAGCT
AGAGTCTGATGTGCTTAGAGCATGTGTGCGTATCTGAACCATCATCCCTGCTCTCATCTCAGCTCCCTCCAGGC
CTGAGCACCGGTTCCTTTTGTCCCATACGTCATGAAGTCACACTATTGGGAAACCTGTGCTTCCCTCTCCATGGC
TTAACTCCCCTGTCAGTGTGCGAGTGTATAAGAATGCTTGTAATACTGTAATATATTTATTAATATTTGAAAGGC
ATTCATTCACTGGACAGTGGGAATTAAGTCTCCCAAGGCAAGTGAATGATTGACGTACGTTGATTTAAC
AATCTTACTAGATTTTAATCTTAAGGATTTCAAATGAAACCAGAAGGTGGTTATGTAAGAGGCTTAAATGATC
TTATGTTTAAAGAGATTCTGTTATTAGCACCATGAACTCGTACTATGAAATTTTAAAGCCTTTTATTTTCTAAC
TATATTACTGTAGGACTGGATATTAGGTGTCATATAGGAAACACAAAAGTTTATTGCTGTTTGCTAAAGCAAAT
AGCAGAAAATTTTGTATATGCAAACTGTTGAAGGACCATAGAGAAATGTGTACTACTGACGGGGCTTTTACTAG
GCTTCCTGCGTGTGTAAAAGTCGAGGTATTGCTGGCATTGAGGGTGACATGATGGTACTAAATGTTTTCCATTAA
AGTCTTCTATTTTAAATTTAGAGAAAAATAAAATGGCTTTCCATCAG

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FIGURE 5035

MRDLRNGVKLKKVQERQYNPLPIEYQLTPYEMLMDDIRCKRYTLRKVMVNGDIPRLKKSAAHEIILDFIRSRPPL
NPVSARKLKPTPPRPRSLHERILEEIKAEKLRPVSPPEIRRSRLAMRPLSMSYSFDLSDVTTPESTKNLVESM
VNGGLTSQTKENGLSTSQQVPAQRKKLLRAPTLAELDSSESEEEETLHKSTSSSSVSPSPPEEPVLEAVSTRKKPP
KFLPISSTPQPERRQPPQRRHSIEKETPTNVRQFLPPSRQSSRSLEEF CYPVECLALTVEEVMHIRQVLVKAELE
KYQQYKDIYTALKKGKLCFCCRTRRF SFFTWSYTCQFCKRPVCSQCCKKMRLPSKPYSTLP IFSLGPSALQGES
SMRSEKPSTAHHRPLRSIARFSSKSKSMDKSDEELQFPKELMEDWSTMEVCVDCKKFI SEI I SSSRRSLVLANKR
ARLKRKTQSFYMSSPGPSEYCPSEITSEI

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FIGURE 5036

TTCTTTCTTGCCGTGCCGATAGCGCTCACGCAAGCATGGTTAACGTCCCTAAAACCCACCAGACTTTCTGTAAGA
AGTGTGGCAAGCACCAACCCACAAAGTGACACAGTACAAGAAGGGCAAGGATTCTCTGTATGCCCAGGGAAAGT
GGCGTTATAACAGGAAGCAGAGTGGCTATGGTGGGCAGACTAAGCCGATTTTCCAGAAAAAGGCTAAACTACAA
AGAATACTGTGCTAAGGCTTGAGTGC GTT GAGCCCACTGCAGATCCAAGAGAATGCTGGCTATTAAAAGATGCA
AGCATTTTGA ACTGGGAGGAGATAAGAAGAGAAAGGGCCAAGTGATCCCGTTCTAAGTGT CATCTTTATTATGA
AGACAATAAAA

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FIGURE 5037

GGCACGAGGCAGACCATGAGGTTTAACTGAGTGAACACCGCTGTTCCGGGGCTCTGCCTCTCGCTGAACGCTCCT
GCTGGGCTGGGGCCTCCCGAGTAGCTGGAAGTACAGATAATCACAGCTGGCTTATCAATATTGCTGTTTGATGCG
ATCCTGACCAGTGCAACCACGGGATGCTCCTGCTCGGTGCGCTTGGAGAGGCCTTGCTGGTTTTCTCAGAGCGG
AAGAGCTCCTGAACAAGACGGTCAAGAGAAAGACTCACAGGCTGCTGCGGGAGAACAGCTTGTACACCTGTGTAC
GAGCCCTGGTCTCATAGCTCCCTGTTGGATGTGTGAGAAAGAGGAATGCAAGGACAGTGAGGCCAGGTGGGCAG
TGCCATCACCTCACCAAGTGAATGTGGTGGTGGCTGATGAGGCCGAGGCCCTGGTGCTTCAAGGAGCACCCCTT
TCTGGGGTCTGCAGGCTCACTGCAGAGGAGCGGTCTGTTACATCTTCCCATTGGGAGAACCTCTCTCAACCGTGC
TGTAGCTGGTCTGCAGAAACAGGAAGTACAGGATTTCATGGGCTGGCTCTGCTCGCCTCGACTGAGCTTCACAC
CTCTGGATGCCACATGCTCTCTCCCAAACACTGCTTTCAGTGCAAGGTAGTGGGCCTAAGGGGTTTTGGTTGTCT
TTTTTTTTTTCATTTTTAAAAATTTTAAATTTTTATTATTATTATTTTTTAGAGACAAGGCCTCGCTCTATCGC
CTAGGCTGAAGCACAGTGGTGCATCACAGCTCGCTGCAGCCTTGACCTCCTAGGATCAAGCCATCCTCCTGCCT
CAGCATCCACAGTAGCTGATGTGCACCACCAGACCCGCTCATTTTTTCTATTTTTATTATTTTTAGAGATGGGA
TCTCACTGTGTTGGCCAGGCTGGTCTCAAACCTCGGCTCAAGCAATCCTCCACCTTGGCCTCAAAGTATTGA
GATTACAGGCATGAGCCACTGCACCCGGCCTTTCTCATTTTTATTTTTAAATTGACAGACGTAACAGTGCGCATT
TATCACGCACAACAATGCTTTGGGAATGGTTAAATCTAGCTCACAAATGCATTACCTCACACGGTTGTCAATTT
TTGTGGTGAGGCTTGGTTGTATGTTTTGTTTCATTGTTTACATCCTTGGAGTCTCCTCTGGGTCCGTCCT
TTCTTTGCTGTCATGCTGGCTTGCCTAAGGCCACCGCCACCTGCGTACGAGCATTTTAACTCTAGAGTGAGTG
ACAGCCTTTTTATGGTTGGTGTACTATTTATTTCCCTGCCTCTAACTTCTCGTGGTCTTATAAACTTGTGAGG
ATGTTGTGTTGCGTTGAATTCGTCATGTCTTTTTTTGCCACCCCTCAGGTAAAGCTGGTACTAACTTATCCCCAG
AGGAAACAGGGTTTATGAGCACTGACAGATGTCTTCCCTGGGCAAAAAAAAAAAAAAAAAATAGTATATGTATACAC
ACACACATACACATTTATATTTATATTTCTTAAAGCTTTTAAATCCCTTTCATTCCCTGATATCTCAGAGATTTCA
AATCATTGAACACTGAAGTATATTTTTCAGGCCAGATGAAAAATTGTATTAAACCCTATTCTGGTCAGGCGCA
GTGGCTCACGCCTATAATCCCAGCACTTTGGGAGGCCGAAGTAAGCAGATCACCTGAGGTCGGGAGTTCAAGACA
AACCTGGCCAACATGGTGAAACCCTGTCTCTACTAAACTACAAAAAAATTAGCCTGATGTGGTGTGTGTGCCT
GTAGTCCCAGCTACTTAGGAGGCTGAGGTAGGAGAATTGCTTGAACCTGGGAGGCGGAGGTTGCAGTGAGCCAAA
ATTACGCCACTGCCTCCAGCCTGGGCAACAGAGCGAGACAGTCTCAAAAACAACAACAACAACAACCAACCTAT
TCCTTGCCCTTTGTAGGAGTCAAAATAAATGAACCTCTTTTTTCTTTTTTTATTATTATACTTTAAGTTCTGGGG
TACACGTGCAGAAATGTGCAGGTTTGTACATAGGTATGCACGTGCCATGGTGGTTTGTGTCACCCATCAACCTGT
CACCTACATTAGGTATTTCCCTAATGTTATCCCTCCCTAGCCCTCCATCCCTGACAGGCCCTGGTGTGTGAT
GTTCCCTCCCTATGTCCATGTGTTCTCATTGTCTCAAAATAAATGAATTTACACAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAA

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FIGURE 5038

MPFARCAWRGLAGFLRAEELLNKTVKRKTHRLRENSLYTCVRAPGLIAPCWMQKEECKDSEARWAVPSPSPK

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FIGURE 5039

GAATTCccccccccccccccagtgctccgCGCGCTCTTGACGTCCGGAGCCCCCTGGAGTAGGCGCTTCCGGCCATT
CATACTGCAGTCGGTCAGTGTTTCGGTTGAAGGATTCTGTGTGCTGTCCGACCCAGAGGGTGACGGCGCCGCTAGG
ATGAAGCTCGTGAGATTTTTGATGAAATTGAGTCATGAAACTGTAACCATTGAATTGAAGAACGGAACACAGGTC
CATGGAACAATCACAGGTGTGGATGTCAGCATGAATACACATCTTAAAGCTGTGAAAATGACCCTGAAGAACAGA
GAACCTGTACAGCTGGAAACGCTGAGTATTCGAGGAAATAACATTCCGGTATTTTATTCTACCAGACAGTTTACCT
CTGGATACACTACTTGTGGATGTTGAACCTAAGGTGAAATCTAAGAAAAGGGAAGCTGTTGCAGGAAGAGGCAGA
GGAAGAGGAAGAGGAAGAGGACGTGGCCGTGGCAGAGGAAGAGGGGGTCCTAGGCGATAATGTCTCTCAAGATTT
CAAAGTCATATGAGATTTGGGATATTTTTTGTACAGGTTGTGTTTGTATTATGTCAGTTTTTAATAAACATAAATG
TGGGACAGAGCTGTCTATTTAGTATATCAAAGTTTGTAGTAGTTTCTCCACATTACAGAAATTACCACAGTGAGA
GCTAAGCATTTCTACTGGGCAGTTTCATTTTTAGTTGATCAGGTTTTAAGTTTTTGAAGTAAATTTTTCTTTTT
CTTTTTATGATGAATAAGGTTAAAATAAAAGCCTTAGACAAATTAAATTTGGCAGAGTTTAATTGAGCAAAGGAC
AATTCACAAATCAGGTAGCCCCGTAACCATATAGGCTCAGAGGCTTCAGCCCAGCTGCATAGTTGAAGATTTAT
GGACAGAAGGAAAGTGATGTATGGAATAAGGAGTGAGATACAGCAACAGCCGGATTAGTTACAGTTCAGCGTTT
GCCTTATTTGAATATGGTTTTGAACAGTTCGCTGTCTTTGGTTGGCTGAAACTTAGTGATTGCCACAAGAGTAGGG
TACCGTCTGTTTACACGTCCAGTTAGGCTACAGTTCTATGTACTGAGAAACCTTTAAGCTGAACCTGAGATATGT
AAAGAGACTTTAGGCTAACTTAACAATATATATAGGAATATATCCCTTCTACTTCACATGCACTGAATATGCAT
TTTATTGCTTTACTCTTCATTCTGTGGCACCTACCCACAGGGGAAGTAAGAAGTTTGTTTTGGTATTTTCGGAAAC
TAAAGTCCTTATGGGATGGGGTCTAGAATTGATTCTCCTTTCTGAGTTTTACTCCACGGAGTCTTAGGTACCTG
GTAAAAAGTTGCTTCTAAATTAAGGGTCATTGCTTTGTTGTCTAGCTGCTAATGTCTTACTTTTGTCTTTTGTG
CTTTTAATCAGTTCTTAATAGGATATAGTTTTATGTTTTCCAAGTTATAACTTGGAGTTAATGGTCACTAGATT
ATCAGTTATGAGCAGTGTTAAAATCTCCTATTAATGTGTAATGTACCTGTCAGTGCCCTCTTTATTAAGGGGTTT
TTTGAGAATAAAAGAGAAAAGACCTACTTTATTTGACAGCAAAAAAAAAAAGGAATTC

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FIGURE 5040A

ATGGGATGGCTGTGGATCTTTGGGGCAGCCCTGGGGCAGTGTCTGGGCTACAGTTCACAGCAGCAAAGGGTGCCA
TTTCTTCAGCCTCCCGGTCAAAGTCAACTGCAAGCGAGTTATGTGGAGTTTAGACCCAGCCAGGGTTGTAGCCCT
GGATACTATCGGGATCATAAAGGCTTGTAACCGGACGGTGTGTTCCCTGCAATTGCAACGGACATTCAAATCAA
TGCCAGGATGGCTCAGGCATATGTGTTAACTGTCAGCACAACACCGCGGGAGAGCACTGTGAACGCTGCCAGGAG
GGCTACTATGGCAACGCCGTCCACGGATCCTGCAGGGCCTGCCCATGTCTCACAATAACAGCTTTGCCACTGGC
TGTGTGGTGAATGGGGGAGACGTGCGGTGCTCCTGCAAAGCTGGGTACACAGGAACACAGTGTGAAAGGTGTGCA
CCGGGATATTTCCGGGAATCCCAGAAATTCGGAGGTAGCTGCCAACCATGCAGTTGTAAACAGCAATGGCCAGCTG
GGCAGCTGTCATCCCTGACTGGAGACTGCATAAACCAAGAACCCAAAGATAGCAGCCCTGCAGAAGAATGTGAT
GATTGCGACAGCTGTGTGATGACCCTCCTGAACGACCTGGCCACCATGGGCGAGCAGCTCCGCCTGGTCAAGTCT
CAGCTGCAGGGCCTGAGTGCCAGCGCAGGGCTTCTGGAGCAGATGAGGCACATGGAGACCCAGGCCAAGGACCTG
AGGAATCAGTTGCTCAACTACCGTTCTGCCATTTCAAATCATGGATCAAAAATAGAAGGCCTGGAAAGAGAACTG
ACTGATTTGAATCAAGAATTTGAGACTTTGCAAGAAAAGGCTCAAGTAAATTCAGAAAAGCACAACATTAAAC
AACAATGTTAATCGGGCAACACAAAAGCGCAAAAGAACTGGATGTGAAGATTAAAAATGTTCATCCGGAATGTGCAC
ATTCTTTTAAAGCAGATCTCTGGGACAGATGGAGAGGGAAAACAACGTGCCTTCAGGTGACTTTTCCAGAGAGTGG
GCTGAAGCCCAGCGCATGATGAGGGAACCTGCGGAACAGGAACTTTGGAAAGCACCTCAGAGAAGCAGAAGCTGAT
AAAAGGGAGTCGCAGCTCTTGCTGAACCGGATAAGGACCTGGCAGAAAACCCACCAGGGGGAGAACAATGGGCTT
GCTAACAGTATCCGGGATTCTTTAAATGAATACGAAGCCAAACTCAGTGACCTTCGTGCTCGGCTGCAGGAGGCA
GCTGCCCAAGCCAAGCAGGCAAATGGCTTGAACCAAGAAAACGAGAGAGCTTTGGGAGCCATTCAGAGACAAGTG
AAAGAAATAAATTCCTGCAGAGTGATTTACCAAGTATCTAACCACTGCAGACTCATCTTTGTTGCAAACCAAC
ATTGCGCTGCAGCTGATGGAGAAAAGCCAGAAGGAATATGAAAAATTAGCTGCCAGTTTAAATGAAGCAAGACAA
GAACTAAGTGACAAAGTAAGAGAACTTTCCAGATCTGCTGGCAAAACATCCCTTGTGGAGGAGGCAGAAAAGCAC
GCGCGGTCTTTACAAGAGCTGGCAAAGCAGCTGGAAGAGATCAAGAGAAAACGCCAGCGGGGATGAGCTGGTGCGC
TGTGCTGTGGATGCCGCCACCGCCTACGAGAACATCCTCAATGCCATCAAAGCGGCCGAGGACGCAGCCAACAGG
GCTGCCAGTGATCTGAATCTGCCCTCCAGACAGTGATAAAGGAAGATCTGCCAAGAAAAGCTAAAACCTTGAGT
TCCAACAGTGATAAACTGTAAATGAAGCCAAGATGACACAAAAGAAGCTAAAGCAAGAAGTCAGTCCAGCTCTC
AACAACTTACAGCAAACCTGAATATTGTGACAGTTTCAAGAAAGATGATAGACACCAATCTCACAACCTCTCGA
GATGGTCTTCATGGGATACAGAGAGGTGATATTGATGCTATGATCAGTAGTGCAAAGAGCATGGTCAGAAAGGCC
AACGACATCACAGATGAGGTTCTGGATGGGCTCAACCCCATCCAGACAGATGTGGAAGAATTAAGGACACCTAT
GGGAGGACACAGAACGAAGACTTCAAAAAGGCTCTGACTGATGCAGATAACTCGGTGAATAAGTTAACCAACAA
CTACCTGATCTTTGGCGCAAGATTGAAAGTATCAACCAACAGCTGTTGCCCTTGGGAAACATCTCTGACAACATG
GACAGAATACGAGAACTAATTCAGCAGGCCAGAGATGCTGCCAGTAAGGTTGCTGTCCCCATGAGGTTCAATGGT
AAATCTGGAGTCAAGATCCGACTGCCAAATGACCTGGAAGATTGAAAGGATATACATCTCTGTCTTGTCTC
CAAAGGCCCAACTCAAGAGAAAATGGGGGTACTGAGAATATGTTTGTGATGTACCTTGGAAATAAAGATGCCTCC
CGGGACTACATCGGCATGGCAGTTGTGGATGGCCAGCTCACCTGTGTCTACAACCTGGGGGACCGTGAGGCTGAA
CTCCAAGTGGACCAGATCTTGACCAAGAGTGAGACTAAGGAGGCAGTTATGGATCGGGTGAAAATTTAGAGAATT
TATCAGTTTGCAAGGCTTAATTACACCAAGGAGCCACATCCAGTAAACCAGAAAACCCCGGAGTCTATGACATG
GATGGTAGAAATAGCAATACACTCCTTAATTTGGATCCTGAAAATGTTGTATTTTATGTTGGAGGTTACCCACCT
GATTTTAACTTCCAGTCGACTAAGTTTCCCTCCATACAAAGGTTGTATTGAATTAGATGACCTCAATGAAAAT
GTTCTGAGCTTGTAACCTTCAAAAAACATTCAATCTCAACACAACCTGAAGTGAGGCTTGTAGAAGGAGGAAG
GAAGAGTCAGACAAAATTTATTTGAAGGTACGGGCTATGCTCGAGTTCCAACTCAACCACATGCTCCCATCCCA
ACCTTTGGACAGACAATTCAGACCACCGTGGATAGAGGCTTGCTGTTCTTTGCAGAAAACGGGGATCGCTTCATA
TCTCTAAATATAGAAGATGGCAAGCTCATGGTGAGATACAACTGAATTCAGAGCTACCAAAAGAGAGAGGAGTT
GGAGACGCCATAAACACGGCAGAGACCATTGATTTCAGATCAAAATTGAAAACTCCAAAAGCGTATGTGGATA
AATGTGGACGTTCAAAACACTATAATTGATGGTGAAGTATTGATTTTCAACACATATTATCTGGGAGGAATTCCA
ATTGCAATCAGGGAAAGATTTAACATTTCTACGCCTGCTTTCCGAGGCTGCATGAAAAATTTGAAGAAAACAGT
GGTGTGCTTAGATTGAATGATACTGTGGGAGTAACCAAAAAGTGCTCGGAAGACTGGAAGCTTGTGCGATCTGCC
TCATTTCTCAGAGGAGGACAATTGAGTTTCACTGATTTGGGCTTACCACCTACTGACCACCTCCAGGCCTCATTT
GGATTTTCAACCCAGTGGCATATTATTAGATCATCAGACATGGACAAGGAACCTGCAGGTCACTCTG

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FIGURE 5040B

GAAGATGGTTACATTGAATTGAGCACCAGCGATAGCGGCGGCCCAATTTTTAAATCTCCACAGACGTATATGGAT
GGTTTACTGCATTATGTATCTGTAATAAGCGACAACCTCTGGACTACGGCTTCTCATCGATGACCAGCTTCTGAGA
AATAGCAAAAGGCTAAAACACATTTCAAGTTCCCGGCAGTCTCTGCGTCTGGGCGGGAGCAATTTTGAGGGTTGT
ATTAGCAATGTTTTGTCCAGAGGTTATCACTGAGTCCTGAAGTCCTAGATTTGACCAGTAACCTCTCTCAAGAGA
GATGTGTCCCTGGGAGGCTGCAGTTTAAACAAACCACCTTTTCTAATGTTGCTTAAAGGTTCTACCAGGTTTAAAC
AAGACCAAGACTTTTTCGTATCAACCAGCTGTTGCGAGGACACACCAGTGGCCTCCCCAAGGAGCGTGAAGGTGTGG
CAAGATGCTTGCTCACCACCTTCCAAGACCCAGGCCAATCATGGAGCCCTCCAGTTTGGGGACATTCCCACCAGC
CACTTGCTATTCAAGCTTCCTCAGGAGCTGCTGAAACCCAGGTCACAGTTTGCTGTGGACATGCAGACAACATCC
TCCAGAGGACTGGTGTTTTACACGGGCACTAAGAACTCCTTTATGGCTCTTTATCTTTCAAAGGACGTCTGGTC
TTTGCACCTGGGGACAGATGGGAAAAAATTGAGGATCAAAAGCAAGGAGAAATGCAATGATGGGAAATGGCACACG
GTGGTGTTTGGCCATGATGGGAAAAAGGGGCGCTTGGTTGTGGATGGACTGAGGGCCCGGGAGGGAAGTTTGCCT
GGAAACTCCACCATCAGCATCAGAGCGCCAGTTTACCTGGGATCACCTCCATCAGGGAAACCAAAGAGCCTCCCC
ACAAACAGCTTTGTGGGATGCCTGAAGAACTTTCAGCTGGATTCAAAACCTTGTATACCCCTTCTTCAAGCTTC
GGGGTGCTTCTCGTTGGGTGGTCTTTGGAGAAAGGCATTTATTTCTCTGAAGAAGGAGGTCTATGTCGTCTTG
GCTCACTCTGTATTGTTGGGGCCAGAATTTAAGCTTGTTCAGCATCCGCCCAAGAAGTCTCACTGGGATCCTA
ATACACATCGGAAGTCAGCCCGGGAAGCACTTATGTGTTTACCTGGAGGCAGGAAAGGTACGGCCTCTATGGAC
AGTGGGGCAGGTGGGACCTCAACGTCGGTCACACCAAAGCAGTCTCTGTGTGATGGACAGTGGCACTCGGTGGCA
GTCACCATAAAACAACACATCCTGCACCTGGAACCTGGACACAGACAGTAGCTACACAGCTGGACAGATCCCCTTC
CCACCTGCCAGCACTCAAGAGCCACTACACCTTGGAGGTGCTCCAGCCAATTTGACGACACTGAGGATCCCTGTG
TGGAATCATTCTTTGGCTGTCTGAGGAATATTCATGTCAATCACATCCCTGTCCCTGTCACTGAAGCCTTGGA
GTCCAGGGGCTGTGAGTCTGAATGGTTGCTCTGACCAGTAAACCAAGCCTATTTACAGCAAGGAAATTCACCT
TCAAAGCACTGATTACCCAATGCACCTCCCTCCCCAGCTCGAGATCATTCTTCAATTAGGACACAAACCAGACA
GGTTTAATAGCGAATCTAATTTTGAATCTGACCATGGATACCCATCACTTTGGCATTCACTGCTACATGTGTAT
TTTATATAAAAAATCCATTTCTTGAAGATAAAAAAATTGTTATTCAAATTGTTATGCACAGAATGTTTTTGGTAA
TATTAATTTCCACTAAAAAATTAAATGTCCTTTT

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FIGURE 5041

MGWLWIFGAALGQCLGYSSQQQRVPFLQPPGQSQLQASYVEFRPSQGCSPGYIRDHKGLYTGRCPVCNCGHSNQ
CQDGSIGCVNCQHNTAGEHCERCQEGYYGNAVHGS CRACPCPH TNSFATGCVVNGGDVRC SCKAGYTGTQCERCA
PGYFGNPQKFGGSCQPCSCNSNGQLG SCHPLTGDCINQEPKDSSPAEECD DCDSCVM TLLNDLATMGEQLRLVKS
QLQGLSASAGLLEQMRHMETQAKDLRNQLLNYS AISNHGSKIEGLERELTDLNQEFETLQEKAQVNSRKAQTLN
NNVNRATQSAKELDVKIKNVIRNVHILLKQISGTDGEGNNVPSGDFSREWAEAQRMMRELNRNFGKHLREAEAD
KRESQ LLLNRIRTWQKTHQGENNGLANSIRDSLNEYEAKLSDLRLARLQEAAAQAKQANGLNQENERALGAIQRQV
KEINSLQSDFTKYLTADSSLLQTNIALQLMEKSQKEYEKLAASLNEARQELSDKVRELSRSAGKTS LVEEAEKH
ARSLQELAKQLEEIKRNASGDELVRCAVDAATAYENILNAIKAAEDAANRAASASESALQTVIKEDLPRKAKTLS
SNSDKLLNEAKMTQKKLKQEVSPALNNLQQTLNIVTVQKEVIDTNLTTLRDGLHGIQRGDI DAMISSAKSMVRKA
NDITDEVLDGLNP IQTDVERIKD TYGRTQNE DFKKALTDADNSVNKL TNKLPDLWRKIESINQQLPLGNI SDNM
DRIRELIQQARDAASKVAVPMRFNGKSGVEVRLPNDLEDLKGYSLSLFLQRPNSRENGGTENMFV MYLGNKDAS
RDYIGMAVVDGQLTCVYNLGDREAE LQVDQILTKSETKEAVMDRVKFQRIYQFARLNYTKGATSSK PETPGVYDM
DGRNSNTLLNLDPENNVFVYGGYPDFKLP SRLSFPYKGCIELDDL NENVLSLYNFKKT FNLTTEVEPCRRRK
EESDKNYFEGTGYARVPTQPHAPIPTFGQTIQT TVDRGLLFFAENGDRFISLNIEDGKLMVRYKL NSELPKERGV
GDAINNGRDHSIQIKIGKLQKRMWINVDVQNTIIDGEVDFDFSTYYLGGIPIAIRERFNISTPAFRGCMKNLKKTS
GVVRLNDTVGVTKKCEDWKLVRSAFSRGGQLSFTDLGLPPTDHLQASFGFQTFQPSGILLDHQ TWTRNLQVTL
EDGYIELSTSDSGGPIFKSPQTYMDGLLHYVSVISDN SGLRLLIDDQLLRNSKRLKHIS SRQSLRLGGSNFEGC
ISNVFVQRLSLSP EVLDTLSNSLKR DVS LGGCSLNKPPFLMLLKGSTRFNKT KTFRINQLLQDTPVASPRSVK VV
QDACSP LPKTQANHGALQFGDIPTSHLLFKLPQELLKPRSQFAVDMQTTSSRGLVFHTGT KNSFMALYLSKGRLV
FALGTDGKKLRKSKKEKCNDGKWH TVVF GHDGEKGRLVVDGLRAREGSLPGNSTISIRAPVYLGSPPSGKPKSLP
TNSFVGCLKNFQLDSKPLYTPSSSFVSSCLGGPLEKGIYFSEEGHVVL AHSVLLGPEFKLVFSIRPRSLTGIL
IHIGSQPGKHL CVYLEAGKVTASMDSGAGGTSTSVTPKQSLCDGQWHSVAVTIKQHILHLELDTDSSYTAGQIPF
PPASTQEPLHLGGAPANLTTLRIPVWKSFFGCLRNHVNHI PVPVTEALEVQGPVSLNGCPDQ

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FIGURE 5042

CCTTTCTGCCCCTGGACGCCGCCGAAGAAGCATCGTTAAAGTCTCTCTTCACCCTGCCGTCATGTCTAAGTCAGA
GTCTCCTAAAGAGCCCCGAACAGCTGAGGAAGCTCTTCATTGGAGGGTTGAGCTTTGAAACAACCTGATGAGAGCCT
GAGGAGCCATTTTGAGCAATGGGGAACGCTCACGGACTGTGTGGTAATGAGAGATCCAAACACCAAGCGCTCCAG
GGGCTTTGGGTTTGTACATATGCCACTGTGGAGGAGGTGGATGCAGCTATGAATGCAAGGCCACACAAGGTGGT
GGAAGCTACAATGATTTTGGCAATTACAACAATCAGTCTTCAAATTTTGGACCCATGAAGGGAGGAAATTTTGA
GGCAGAACTCTGGCCCCATATGGCGGTGGAGGCCAGTACTTTGCAAAACCAAGGTGGCTATGGCGGT
TCCAGCAGCAGCAGTAGCTGTGTCAGTGGCAGAAGATTTTAATTAGGAAACAAAGCTTAGCAGGAGAGGAGAGCC
AGAGAAGTGACAGGGAAGCCACAGGTTACAACAGATTTGTGAACTCAGCCAAGCACAGTGGTGGCAGGGCCTAGC
TGCTACAAAGAAGACATGTTTTAGACAAATACTCATGTGTATGGGCAAAAACTCGAGGACTGTGTTTGTGACTA
ATTGTATAACAGGTTATTTTAGTTTCTGTTCTGTGGAAAGTGTAAGCATTCCAACAAAGCGTTTTAATGTAGAT

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FIGURE 5043

CCTTTCTGCCCCGTGGACGCCGCCGAAGAAGCATCGTTAAAGTCTCTCTTCACCCTGCCGTCATGCTCTAAGTCAGA
GTCTCCTAAAGAGCCCCGAACAGCTGAGGAAGCTCTTCATTGGAGGGTTGAGCTTTGAAACAACCTGATGAGAGCCT
GAGGAGCCATTTTGAGCAATGGGGAACGCTCACGGACTGTGTGGTAATGAGAGATCCAAACACCAAGCGCTCCAG
GGGCTTTGGGTTTGTACATATGCCACTGTGGAGGAGGTGGATGCAGCTATGAATGCAAGGCCACACAAGGTGGA
TGGAAGAGTTGTGGAACCAAAGAGAGCTGTCTCCAGAGAAGATTCTCAAAGACCAGGTGCCCACTTAAGTGTGAA
AAAGATATTTGTTGGTGGCATTAAAGAAGACACTGAAGAACATCACCTAAGAGATTATTTTGAACAGTATGGTGG
AAGCAATTTTGGAGGTGGTGGAGCTACAATGATTTTGGCAATTACAACAATCAGTCTTCAAATTTTGGACCCAT
GAAGGGAGGAAATTTTGGAGGCAGAACTCTGGCCCCCTATGGCGGTGGAGGCCAGTACTTTGCAAACACGAAA
CCAAGGTGGCTATGGCGGTTCCAGCAGCAGCAGTAGCTGTGTCTCAGTGGCAGAAGATTTTAATTAGGAAACAAAGC
TTAGCAGGAGAGGAGAGCCAGAGAAGTGACAGGGAAGCCACAGGTTACAACAGATTTGTGAAGTCTAGCCAAGCAC
AGTGGTGGCAGGGCCTAGCTGCTAC

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FIGURE 5044

MSKSKSPKEPEQQRKLFIGGLSFETTDESLSHCEQWGMLTDCVVMRDPNFKHSRGCGFVTYATVEEVDAAMNAR
PHKVDGRVVEPKRAVSREDSQRPGAHLTVKKIFVGGIKEDTEEHHLRDYFEQLEAILQVVEATVILAITTISLQI
LDP

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FIGURE 5045

CCTTTCTGCCCCGTGGACGCCGCCGAAGAAGCATCGTTAAAGTCTCTCTTCACCCCTGCCGTCATGTCTAAGTCAGA
GTCTCCTAAAGAGCCCCGAACAGCTGAGGAAGCTCTTCATTGGAGGGTTGAGCTTTGAAACAACCTGATGAGAGCCT
GAGGAGCCATTTTGAGCAATGGGGAACGCTCACGGACTGTGTGGTAATGAGAGATCCAAACACCAAGCGCTCCAG
GGGCTTTGGGTTTGTACATATGCCACTGTGGAGGAGGTGGATGCAGCTATGAATGCAAGGCCACACAAGGTGGA
TGGAAGAGTTGTGGAACCAAAGAGAGCTGTCTCCAGAGAAGATTCTCAAAGACCAGGTGCCCACTTAAGTGTGAA
AAAGATATTGTGGTGGAAAGCTACAATGATTTTGGCAATTACAACAATCAGTCTTCAAATTTGGACCCATGAAGG
GAGGAAATTTTGAGGCAGAACTCTGGCCCCT

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FIGURE 5046

CCTTTCTGCCCCTGGACGCCGCCGAAGAAGCATCGTTAAAGTCTCTCTTCACCCTGCCGTCATGTCTAAGTCAGA
GTCTCCTAAAGAGCCCGAACAGCTGAGGAAGCTCTTCATTGGAGGGTTGAGCTTTGAAACAACCTGATGAGAGCCT
GAGGAGCCATTTTGAGCAATGGGGAACGCTCACGGACTGTGTGGTAATGAGAGATCCAAACACCAAGCGCTCCAG
GGGCTTTGGGTTTGTACATATGCCACTGTGGAGGAGGTGGATGCAGCTATGAATGCAAGGCCACACAAGGTGGA
TGGAAGAGTTGTGGAACCAAGAGAGCTGTCTCCAGAGAAGATTCTCAAAGACCAGGTGCCCACTTAACTGTGAA
AAAGATATTTGTTGGTGGCATTAAAGAAGACACTGAAGAACATCACCTAAGAGATTATTTTGAACAGTATGGAAA
AATTGAAGTGATTGAAATCATGACTGACCGAGGCAGTGGCAAGAAAAGGGGCTTTGCCTTTGTAACCTTTGACGA
CCATGACTCCGTGGATAAGATTGTCATTGAGAAATACCATACTGTGAATGGCCACAACCTGTGAAGTTAGAAAAGC
CCTGTCAAAGCAAGAGATGGCTAGTGCTTCATCCAGCCAAAGAGGTGCAAGTGGTTCTGGAAACTTTGGTGGTGG
TCGTGGAGGTGGTTTCGGTGGGAATGACAACCTCGGTGATGGAGGAACTTCAGTGGTCGTGGTGGCTTTGGTGG
CAGCCGTGCTGGTGGTAGATATGGTGGCAGTGGGGATGGCTCTAATGGATTTGGTAATGATGGAAGCAATTTTGG
AGGTGGTGGAAAGCTACAATGATTTTGGCAATTACAACAATCAGTCTTCAAATTTTGGACCCATGAAGGGAGGAAA
TTTTGGAGGCGAGAACTCTGGCCCTATGGCGGTGGAGGCCAGTACTTTGCAAAACCACGAAACCAAGGTGGCTA
TGGCGGTTCCAGCAGCAGCAGTAGCTGTGTGAGTGGCAGAGATTTTAATTAGGAAACAAAGCTTAGCAGGAGAG
GAGAGCCAGAGAAGTGACAGGGAAGCCACAGGTTACAACAGATTTGTGAACTCAGCCAAGCACAGTGGTGGCAGG
GCCTAGCTGCTACAAAGAAGACATGTTTTAGACAAATACTCATGTGTATGGGCAAAAACTCGAGGACTGTGTTT
GTGACTAATTGTATAACAGGTTATTTTAGTTTTCTGTTCTGTGGAAAGTGTAAGCATTCCAACAAAGCGTTTTAA
TGTAATTTTTTTTTTTTGCACCCATGCTGTTGATTGCTAAATGTAATAGTCTGATCGTGACGCTGAATAAATGT
CTTTTTTTTTTTAATGTGCTGTGTAAAGTTAGTCTACTCTGAAGCCATCTTGGTAAATTTCCCAACAGTGTGAA
GTTAGAATTCCTTCAGGGTGATGCCAGGTTCTATTTGGAATTTATATACAACCTGCTTGGGTGGAGAAGCCATTG
TCTTCGGAACCTTGGTGTAGTTGAACTGATAGTTACTGTTGTGACCTGAAGTTCACCATTAAAAGGGATTACCC
AAACAAAGTCATGGAATGGTTATAAAAGTGATTGTTGGCACATCCTATGCAATATATCTAAATTGAATAATGGTA
CCAGATAAAATTATAGATGGGAATGAAGCTTGTGTATCATCCATTATCATGTGTAATCAATAAACAATTTAATTC
TCTTGAA

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FIGURE 5047

MSKSESPKEPEQLRKLF IGGLSFETTTDESLSHFQWGTLTDCVVMRDPNTKRSRGFGFVITYATVEEVDAAMNAR
PHKVDGRVVEPKRAVSREDSQRPD AHLTVKKIFVGGIKEDTEEHHLRDYFEQYGKIEVIEIMTDRGSGKKRGFAF
VTFDDHDSVDKIVIQKYHTVNGHNCEVRKALSKQEMASASSSQRGRSGSGNFGGGRGGGFGGNDNFGRGGNFSGR
GGFGGSRGGGGYGGSGDGYNGFGNDGSNFGGGGSYNDFGNYYN

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FIGURE 5048

AAGTCTCTCTTCACCCGTCCGTCATGTCTAAGTCAGAGTCTCCTAAAGAGCCCGAACAGCTGAGGAAGCTCTTCA
TTGGAGGGTTGAGCTTTGAAACAACCTGATGAGAGCCTGAGGAGCCATTTTGAGCAATGGGGAACGCTCACGGACT
GTGTGGTAATGAGAGATCCAAACACCAAGCGCTCCAGGGGCTTTGGGTTTGTACATATGCCACTGTGGAGGAGG
TGGATGCAGCTATGAATGCAAGGCCACACAAGGTGGATGGAAGAGTTGTGGAACCAAAGAGAGCTGTCTCCAGAG
AAGATTCTCAAAGACCAGGTGCCCACTTAACTGTGAAAAAGATATTTGTTGGTGGCATTAAAGAAGACACTGAAG
AACATCACCTAAGAGATTATTTTGAACAGTATGGAAAAATTGAAGTGATTGAAATCATGACTGACCGAGGCAGTG
GCAAGAAAAGGGGGCTTTGCCTTTGTAACCTTTGACGACCATGACTCCGTGGATAAGATTGTCATTAGAAATACC
ATACTGTGAATGGCCACAACCTGTGAAGTTAGAAAAGCCCTGTCAAAGCAAGAGATGGCTAGTGCTTCATCCAGCC
AAAGAGGTCGAAGTGGTTCTGGAACTTTGGTGGTGGTTCGTGGAGGTGGTTTCGGTGGGAATGACAACTTCGGTC
ATGGAGGAACTTCAGTGGTTCGTGGTGGCTTTGGTGGCAGCTCTAATGGATTGGTAATGATGGAAGCAATTTTG
GAGGTGGTGGGAAGCTACAATGATTTTGGCAATTACAACAATCAGTCTTCAAATTTTGGACCCATGAAGGGAGGAA
ATTTTGGAGGCAGAACTCTGGCCCCCTATGGCGGTGGAGGCCAGTACTTTGCAAAACCACGAAACCAAGGTGGC

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FIGURE 5049

ACCCTGCCGTCATGTCTAAGTCAGAGTCTCCTAAAGAGCCCGAACAGCTGAGGAAGCTCTTCATTGGAGGGTTGA
GCTTTGAAACAACTGATGAGAGCCTGAGGAGCCATTTTGAGCAATGGGGAACGCTCACGGACTGTGTGGTAATGA
GAGATCCAAACACCAAGCGCTCCAGGGGCTTTGGGTTTGTCACATATGCCACTGTGGAGGAGGTGGATGCAGCTA
TGAATGCAAGGCCACACAAGGTGGATGGAAGAGTTGTGGAACCAAAGAGAGCTGTCTCCAGAGAAGATTCTCAA
GACCAGGTGCCCACTTAACTGTGAAAAAGATATTTGTTGGTGGCATTAAAGAAGACACTGAAGAACATCACCTAA
GAGATTATTTTGAACAGTATGGAAAAATTGAAGTGATTGAAATCATGACTGACCGAGGCAGTGGCAAGAAAAGGG
GCTTTGCCTTTGTAACCTTTGACGACCATGACTCCGTGGTGGCTTTGGTGGCAGCCGTGCTGGTGGTAGATATGG
TGGCAGTGGGGATGGCTCTAATGGATTTGGTAATGATGGAAGCAATTTTGGAGGTGGTGGGAAGCTACAATGATTT
TGGCAATTACAACAATCAGTCTTCAAATTTTGGACCCATGAAGGG

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FIGURE 5050

TTTTCTTAGACATTAAC TGCAGACGGCTGGCAGGATAGAAGCAGCGGCTCACTTGGACTTTTTCCACCAGGGAAAT
CAGAGACAATGATGGGGCTCTTCCCCAGAACTACAGGGGCTCTGGCCATCTTCGTGGTGGTCATATTGGTTCATG
GAGAATTGCGAATAGAGACTAAAGGTCAATATGATGAAGAAGAGATGACTATGCAACAAGCTAAAAGAAGGCAAA
AACGTGAATGGGTGAAATTTGCCAAACCC TGCAGAGAAGGAGAAGATAACTCAAAAAGAAACCCAATTGCCAAGA
T TACTTCAGATTACCAAGCAACCCAGAAAATCACCTACCGAATCTCTGGAGTGGGAATCGATCAGCCGCCTTTTG
GAATCTTTGTTGTTGACAAAAACACTGGAGATATTAACATAACAGCTATAGTCGACCGGGAGGAACTCCAAGCT
TCCTGATCACATGTCGGGCTCTAAATGCCCAAGGACTAGATGTAGAGAAACCACTTATACTAACGGTTAAAATTT
TGGATATTAATGATAATCCTCCAGTATTTT CACAACAAATTTTCATGGGTGAAATTGAAGAAAATAGTGCCTCAA
ACTCACTGGTGATGATACTAAATGCCACAGATGCAGATGAACCAAACCACTTGAATTCTAAAATTGCCTTCAAAA
TTGTCTCTCAGGAACCAGCAGGCACACCCATGTTCTCTAAGCAGAAACACTGGGGAAGTCCGTACTTTGACCA
ATTCTCTTGACCGAGAGCAAGCTAGCAGCTATCGTCTGGTTGTGAGTGGTGCAGACAAAGATGGAGAAGGACTAT
CAACTCAATGTGAATGTAATATTAAGTGAAAGATGTCAACGATAACTTCCCAATGTTTAGAGACTCTCAGTATT
CAGCACGTATTGAAGAAAATATTTTAAGTTCTGAATTACTTCGATTTCAAGTAACAGATTTGGATGAAGAGTACA
CAGATAATTGGCTTGCAGTATATTTCTTTACCTCTGGGAATGAAGGAAATTGGTTTGAAATACAACTGATCCTA
GAACATAATGAAGGCATCCTGAAAGTGGTGAAGGCCTCTAGATTATGAACAAC TACAAAGCGTGAAACTTAGTATTG
CTGTCAAAAACAAAGCTGAATTTACCAATCAGTTATCTCTCGATACCGAGTTCAGTCAACCCAGTCACAATTC
AGGTAATAAATGTAAGAGAAGGAATTGCATTCCGTCTCTGCTTCCAAGACATTTACTGTGCAAAAAGGCATAAGTA
GCAAAAAATTGGTGGATTATATCCTGGGAACATATCAAGCCATCGATGAGGACACTAACAAAGCTGCCTCAAAATG
TCAAAATATGTCATGGGACGTAACGATGGTGGATACCTAATGATTGATTCAAAAAC TGTGAAATCAAATTTGTCA
AAAATATGAACCGAGATTCTACTTT CATAGTTAAACAAAACAATCACAGCTGAGGTTCTGGCCATAGATGAATACA
CGGGTAAAACTTCTACAGGCACGGTATATGTTAGAGTACCCGATTTCAATGACAATTGTCCAACAGCTGTCCTCG
AAAAAGATGCAGTTTGCAGTTCTTCACCTTCCGTGGTTGTCTCCGCTAGAACACTGAATAATAGATACACTGGCC
CCTATACATTTGCACTGGAAGATCAACCTGTAAAGTTGCCTGCCGTATGGAGTATCACAACCTCAATGCTACCT
CGGCCCTCCTCAGAGCCCAGGAACAGATACCTCCTGGAGTATACCACATCTCCCTGGTACTTACAGACAGTCAGA
ACAATCGGTGTGAGATGCCACGCAGCTTGACACTGGAAGTCTGTCAGTGTGACAACAGGGGCATCTGTGGAAC TT
CTTACCCAACCACAAGCCCTGGGACCAGGTATGGCAGGCCGCACTCAGGGAGGCTGGGGCCTGCCGCCATCGGCC
TGCTGCTCCTTGGTCTCCTGCTGCTGCTGTTGGCCCCCTTCTGCTGTTGACCTGTGACTGTGGGGCAGGTTCTA
CTGGGGGAGTGACAGGTGGTTTTATCCAGTTCTCTGATGGCTCAGAAGGAACAATTCATCAGTGGGGAATTGAAG
GAGCCCATCCTGAAGACAAGGAAATCACAATATTTGTGTGCCCTCTGTAACAGCCAATGGAGCCGATTTTCATGG
AAAGTTCTGAAGTTTGTACAAATACGTATGCCAGAGGCACAGCGGTGGAAGGCACTTCAGGAATGGAATGACCA
CTAAGCTTGGAGCAGCCACTGGAATCTGGAGGTGCTGCAGGCTTTGCAACAGGGACAGTGTGAGGAGCTGCTTCAG
GATTCCGAGCAGCCACTGGAGTTGGCATCTGTTCTCAGGGCAGTCTGGAACCATGAGAACAAGGCATTTCCACTG
GAGGAACCAATAAGGACTACGCTGATGGGGCGATAAGCATGAATTTCTGGACTCCTACTTTCTCAGAAAGCAT
TTGCCGTGTGCGGAGGAAGACGATGGCCAGGAAGCAAATGACTGCTTGTGATCTATGATAATGAAGGCGCAGATG
CCACTGGTTCTCCTGTGGGCTCCGTGGGTTGTTGCAGTTTATTGCTGATGACCTGGATGACAGCTTCTTGGACT
CACTTGGACCCAAATTTAAAAAACTTGCAGAGATAAGCCTTGGTGTGATGGTGAAGGCAAGAAGTTTCAGCCAC
CCTCTAAAGACAGCGGTTATGGGATTGAATCCTGTGGCCATCCCATAGAAAGTCCAGCAGACAGGATTTGTTAAGT
GCCAGACTTTGTGAGGAAGTCAAGGAGCTTCTGCTTTGTCCGCCCTCTGGGTCTGTCCAGCCAGCTGTTTCCATCC
CTGACCCTCTGCAGCATGGTAAC TATTTAGTAACGGAGACTTACTCGGCTTCTGGTTCCCTCGTGCAACCTTCCA
CTGCAGGCTTTGATCCACTTCTCACAACAAATGTGATAGTGACAGAAAAGGTGATCTGTCCATTTCCAGTGTTC
CTGGCAACCTAGCTGGCCCAACGCAGCTACGAGGGTCACATACTATGCTCTGTACAGAGGATCCTTGCTCCCGTC
TAATATGACCAGAATGAGCTGGAATACCACACTGACCAAACTCTGGATCTTTGGACTAAAGTATTCAAATAGCAT
AGCAAAGCTCACTGTATTGGGCTAATAATTTGGCACTTATTAGCTTCTCTATAAACTGATCACGATTATAAATT
AAATGTTTGGGTTTCATACCCCAAAGCAATATGTTGTCACTCCTAATTCTCAAGTACTATTCAAATTGTAGTAAA
TCTTAAAGTTTTTCAAACCCCTAAAATCATATTTCG

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FIGURE 5051

MMGLFPRTTGALAIFVVVILVHGELRIETKGQYDEEEMTMQQAARRQKREWVKFAKPCREGEDNSKRNP IAKITS
DYQATQKITYRISGVGIDQPPFGIFVVDKNTGDINITAIVDREETPSFLITCRALNAQGLDVEKPLILTVKILDI
NDNPPVFSQQIFMGEIEENSASNSLVMILNATDADEPNHLNSKIAFKIVSQEPAGTPMFLLSRNTGEVRTLTNSL
DREQASSYRLVVS GADKDGEGLS TQCECN IKVKDVNDNFMFRDSQYSARIEENILSSELLRFQVTDLDEEYTDN
WLAVYFFTSGNEGNWFEIQTDPRTN EGILKVVKALDYEQLQSVKLSIAVKNKAEFHQSVISRYRVQSTPVTIQVI
NVREGIAFRPASKTFTVQKGISSKKLV DYLGT YQAIDEDTNKAASNVKYVMGRNDGGYLMIDSKTAEIKFVKNM
NRDSTFIVNKTITAEVLAIDEYTGKTSTGT VYVRVPDFNDNCPTAVLEKDAVCSSSPSVVVSARTLNNRYTGPYT
FALEDQPVKLP AVWSITTLNATSALLRAQE QIPPGVYHISLVLTDSQNNRCEMPRSLTLEVQC DNRGICGTSYP
TTSPGTRYGRPHSGRLGPAAIGLLLLGLLLLLLAPLLLLTCD CGAGSTGGVTGGFIPVPD GSEGTIHQWGIEGAH
PEDKEITNICVPPVTANGADFMESSEVCTNTYARGTAVEGTSGMEMTTKLGAATESGGAAGFATGTVS GAASGFG
AATGVGICSSGQSGTMRTRHSTGGTNKDYADGAISMNFLDSYFSQKAFACAEEDDGQEANDCLLIYDNEGADATG
SPVGSVGCCSFIADDLDDSF LDSLGPKFKKLAEISLGV DGEKQVQPPSKDSGYGIESCGHP IEVQQTGFVKCQT
LSGSQGASALSASGSVQPAVSI PDPLQHGNYLVTETYSASGSLVQFSTAGFDPLLTQNVIVTERVICPISSVPGN
LAGPTQLRGSHTMLCTEDPCSR LI

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FIGURE 5052

CCCACGCGTCCGGATGGTCCTGGTCACAAAATATTAAAGAGACCGACCGCTAAGGGAACAGGAAAAACGTCCGAG
ACAGCCGTTGCAATTACGAATGGACCAGACTTGGTAGCACGGGGCATTGATTGCTGGTGCCCAACCGGACCCTCC
TCCCCTCTTCCCATCCCTTCCCCACCCAAAGCAGGCTCCCGCTGCGGCCGGGACCTCGCATCCCTGCAACGTGG
CCGGGGCTGCATTTTTCATGAGCCTAGGGTGAACAGGTGCGAAGTGCGCTGGGAGCATCCGGCCAGCGGCCGAGC
GCGGGGAACATGGAGAGCGAGCGGACATGTACCGCCAGTTCCAGGACTGGTGCCTCAGGACTTACGGGGACTCA
GGCAAGACCAAGACGGTGACCCGTAAAAAATACGAACGGATCGTCTAGCTCCTCAATGGCTCCGAGTCGAGCTCC
ACGGACAACGCCAAATTTAAATTCTGGGTCAAATCGAAGGGCTTCCAGCTGGGCCAGCCGGACGAGGTCCGCGGG
GGAGGCGGCGGCCAAGCAAGTGCTCTAGTGCTGTCAAGACCACGGATGGCGTAGGGGTAGATGAGAAGCTAT
CTTTACGACGGGTAGCTGTGGTTGAAGATTTCTTTGACATTATTTATTCGATGCATGTGGAAACGGGGCCAAATG
GAGAACAAATTCGGAAACACGCTGGACAAAAGAGAAGTTACAAAGCAATTCAGAGAGCTATGCCTTCCTACCAA
GAGAAGCGGTGACACGATTCTAATGAGCTGCTCAGAGTGCCAGAAAAGAATGCATTTAAACCCAGATGGAACAG
ATCATAAAGATAATGGAAAACCTCCACTTTGGTGACCAGCATGATTGACTACAACATGCCAATTACCATGGCCT
ACATGAAACACATGAAGCTGCAGCTGCTAAACTCAGACGAAGATGAGGATGAAAGTTCAATAGAAAAGTGATGAAT
TTGACATGAGTGATTCAACACGGATGTGAGCTGTGAAGTCTGATCTTAGCTCCAATCTTGAAGAAAAGATGCAAA
GTCCCCAGAATCTTCATGGCCAGCAAGATGATGATTCTGCTGCAGAGAGCTTTAATGGCAATGAGACTCTGGGGC
ACAGTTCAATTGCTTCAGGGGGAACACACAGCAGGGAGATGGGAGACTCCAACAGTGATGGCAAACTGGGCTGG
AGCAAGATGAACAGCCACTGAACCTGAGTGACAGTCCCTCTCTGCGCAGCTAACTTCGGAATACAGAATAGATG
ATCACAACAGTAATGGGAAAAACAAGTATAAGAATCTTCTAATTTCTGACCTCAAGATGGAACGAGAGGCGAGAG
AAAATGGAAGCAAGTCTCCTGCACATAGTTACTCCAGCTATGACTCTGGCAAAAATGAGAGTGTAGACCGAGGAG
CTGAGGACCTCTCACTAAACAGGGGAGATGAGGACGAAGATGACCACGAGGACCATGACGATTCGGAGAAAAGTTA
ATGAGACAGACGGCGTTGAAGCCGAGCGGCTGAAAGCTTTTAATATGTTTGTGAGGCTGTTTGTAGATGAAAAT
TGGACCGAATGGTCCCAATCTCTAAGCAGCCCCAAAGAAAAGATCCAGGCTATCATTGACTCATGCAGGCGACAAT
TCCCTGAGTATCAAGAGCGTGCCAGAAAACGTATACGTACTTACCTCAAGTCCTGCAGGCGGATGAAAAGAAGTG
GTTTTGAGATGTCCTCGACCTATTCCTTCCCACCTTACTTCAGCAGTTGCAGAGAGTATCTTGGCTTCAGCTTGTG
AGAGTGAGAGTAGAAATGCCGCCAAGAGGATGCGTCTGGAGAGACAGCAGGATGAGTCTGCTCCAGCTGACAAAC
AGTGTAACCAGAGGGCGACCCAGGCCACTTACTCAACATCAGCTGTTCCAGGCTCACAGGACGTGCTGTACATCA
ATGGAAATGGGACCTATAGTTACCATAGTTACAGAGGGCTAGGAGGGGGTCTGCTAAATCTGAATGATGCTTCCA
GCAGTGGACCCACTGATCTCAGCATGAAGAGACAATTGGCGACTAGCTCAGGATCCTCCAGCAGCTCAAACCTCCA
GACCCAGCTGAGTCCAACCTGAAATCAATGCCGTGAGACAGCTTGTTCAGGATATCGAGAATCAGCTGCATTTT
TATTGCGATCTGCAGATGAACTGGAAAATCTCATTTTACAACAGAACTCGAGACAGACGACCACCATATTTACTGA
GGTCTAAATTTGCAGTTCCACTAATGACATTTTGAATTTCCCAACAGAGATACTTCTGGTCTTACTGCACAGTCTT
TTAAGAGAAATACTTCCATTATGCCACATTGTCCTTGATCCGTAAGTGATGTGTTAAGGTGCTTCAAAGGAACTC
TGACCTCTGAAGTACTTGAGCTACTTTAGTATGTCCAGCCTATTGCTTTTGTGTTTAGTGTGTACCATAAATAT
CAGGGGCATAAAAGGCTATCTATTCTTAATTCAAGGATAAAACAGAAGAAGCTTGTGGTATAAAACAATAGTTCA
AGATCCAGCTGAAATATTAGTGGAATTTGCTACTGACTCATTGGACTGAAAGCTGAAGTACCTGGCAAAAAAA

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FIGURE 5053

MHVETGPNGEQIRKHAGQKRTYKAISESYAFLPREAVTRFLMSCSECQKRMHLNPDGTDHKDNGKPPTLVTS MID
YNMPITMAYMKHMKLQLLNSQQDEDESSIESDEFDMSDSTRMSAVNSDLSSNLEERMQSPQNLHGQQDDDSAAES
FNGNETLGHSSIASGGTHSREMGDSDGKTGLEQDEQPLNLSDSLPLSAQLTSEYRIDDHNSNGKNKYKNLLISD
LKMEREARENGSKSPAHSYSSYDSGKNESVDRGAEDLSLNRGDEDEDHEDHDDSEKVNEDTGVEAERLKAFNMF
VRLFVDENLDRMVPISKQPKEKIQAIIDSCRRQFPEYQERARKRIRTYLKSCRRMKRSGFEMSRPIPSHLTSAVA
ESILASACESESRNAAKRMRLEQQDESAPADKQCKPEATQATYSTSAVPGSQDVLIVINGNGTYSYHSYRGLGGG
LLNLNDASSSGPTDLSMKRQLATSSGSSSSSNSRPQLSPTEINAVRQLVAGYRESAAFLLRSADELENLILQON

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FIGURE 5054

ATCTTGCTGTTTTCGGCCGGTCTTGATGAAGCGGCGGCCGTGGTGAGAGCGTGGGGAAGGGTGGGGTGAGGGG
GCGAGGCCGACGTAGGGCGGCGAACTCTCCTCCCTCGGCCCCACCGCGTGGGACGGCGTGAACGTGGTGTCG
GAGGGATGTCAGCCTTCTCTGAGGCGGCGCTGGAGAAGAAGCTGTGCGAGTTGAGCAACTCGCAGCAGAGCGTGC
AGACCTTGTCCTGTGGCTCATTACCACCGTAAACACTCGCGTCCCATCGTCACCGTGTGGGAGCGGGAGCTGC
GGAAAGCCAAACCAACAGGAAGCTTACTTTTCTCTACCTAGCCAATGATGTCATACAGAACAGCAAGAGGAAGG
GGCCAGAGTTTACAAAAGATTTTGCACCAAGTTATAGTGGAGGCTTTTAAGCATGTTTCAAGTGAACTGATGAAA
GTTGTAAGAAGCACCTTGGAAGAGTGTTATCTATTTGGGAAGAAAAGTCTGTTTATGAAAATGATGTATTAGAAC
AACTTAAACAAGCTCTGTATGGTGATAAGAAGCCTAGGAAGCGAACTTATGAACAGATAAAGGTGGATGAAAATG
AAAAGTGTCTCTCTGGGATCTCCAAGTGAACCAACACAGACTCTAGATCTCGTTAGAGCATTACAAGATCTGG
AAAATGCAGCCTCAGGTGATGCAGCAGTTTCATCAGAGGATAGCTTCTTTACCTGTTGAAGTCCAAGAAGTATCTC
TATTAGATAAAATAACAGATAAAGAATCTGGAGAAAGGCTTTCCAAAATGGTAGAGGATGCGTGTATGTTGCTGG
CAGATTACAATGGCAGATTGGCGGCAGAAATAGATGATAGAAAGCAACTCACTCGAATGTTAGCAGATTTTCTTC
GTTGTCAAAAGGAAGCCCTTGCAAGAAAAGAGCATAAATTGGAAGAGTACAAGCGCAAGCTAGCCAGAGTTTCCC
TGGTGCGCAAAGAACTCAGGTCCCGGATCCAGAGCCTGCCAGACTTATCTCGATTGCCCAATGTCACTGGCAGCC
ACATGCACCTGCCCTTTGCGGAGACATCTACAGTGAAGATTGATGGACCAGCCTCTTTCCAGGTCCCAGGACTT
TGCAAGAGATGGAGACAGGTTAGGTGGATAGTCCGTAGTGTATTTTTGTATATTGTTGAGAAAGAAACACTAA
CAAAAGGAACAACGAGTAATTTATAAAATTGTTTAAAATGTTGGTTTGTTTACTATTTTATTGGTAAATTAACAT
GACTTAATTTGAACAAAGTGATGATTTGTGTGATTAATAAGCTCACAAATAGTGATTATTTTCAAAAGATCTTT
TTGTAATTTTTTTTTTTGATCCAAGGCCTTGAGAGAAATCTCTTGTGTTGTATTTCTTCAGGTATTTTCAATTGTT
TTTCTTTATTTTCTTCAGCATTTAATCACTGTATACTATGTAATTCCTGAAGGGGAAGAACTAATTAGGAGTTGA
TTGAGACTTTATTATGGTATAGTTAGGACTTGATTGTAGAAGGGACTAAATGTTCCAACATAATCTTTACCCTTC
TCCCCAAACAAAATATCAATTCTGTGTCTCTACATGCCCTTGATTCCCTTAGAGGTGCGTAATTTAACATAAAACA
GGGATGTCACCTTGAGGGGCAGATGAAAGTCTAGAGAACTGTTCCCTTAATAGCATTGTAAAAGTTCCATTCCAAC
TGCCAGTGTAGATTTTAAAAGTGTTAAATAGTGACTCCCTTGATTAAACTGTTTGTAAATTTTGAGTAGATTAA
TAATGAAAATACTTTGGAAATAATATACATTTTGACATTCTACCAAGAGGACAACCTTTGGTTCTGGAAGTGGTTT
CTATTTGTCAAATCAGTTTCCCTTTTAACATAATTAATCCCTTTAACAAAAAGCCGTCTATGGGATTAAAAGACAC
GTGAAATGATACTTTTATTATCCCTTGCTCATATAACTTTAAAAATAATACTTTTAGCTCTAATAGCTCAAGAA
CACAATATTCGTTAATGTTTCAAGTAGCCTGAGACATTTTCAATGTTTCCCTTAAGGTTTTTGAATGACTGTA
TATTTGGCAGTTAAGCAGTGCCACACTACAGGGTAGATATGGTAAATTTTATATTTGTATATTTACAGTTACAAA
ACAAATGTACTTTTACCTTTTATTTCTGACCTGTGTGTTAGAGCAGTTGCATGCTCTCCTGCTGTTAAAAACAC
ATTGTTAAGCTGTGGATTTGTACTCAATAATGACTTAGGATAAACATTTATTTTCAATCATTGCTTTACATACTA
GACATTTTCTCTCTTTGTAAGTAGATTCAAATTAGATAGTCAATAAAACATCTTGAAAATCCCACAAGCC

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FIGURE 5055

ACCGCGTGTTTCGCGCCTGGTAGAGATTTCTCGAAGACACCAGTGGGCCCGTTCCGAGCCCTCTGGACCGCCCGTG
TGGAAACAAACCTGCGCGCGTGGCCGGGCGTGGGACAACGAGGCCGCGGAGACGAAGGCGCAATGGCGAGGAAG
TTATCTGTAATCTTGATCCTGACCTTTGCCCTCTCTGTACAAATCCCTTCATGAATAAAAGCAGCTGCTTTC
CCCCAGACCACTGAGAAAATTAGTCCGAATTGGGAATCTGGCATTAAATGTTGACTTGGCAATTTCCACACGGCAA
TATCATCTACAACAGCTTTTCTACCGCTATGGAGAAAATAATTCTTTGTGAGTTGAAGGGTTTCAGAAAATTACTT
CAAAATATAGGCATAGATAAGATTAAAAGAATCCATATACACCATGACCACGACCATCACTCAGACCACGAGCAT
CACTCAGACCATGAGCGTCACTCAGACCATGAGCATCACTCAGAGCACGAGCATCACTCTGACCATGATCATCAC
TCTCACCATAATCATGCTGCTTCTGGTAAAAATAAGCGAAAAGCTCTTTGCCAGACCATGACTCAGATAGTTCA
GGTAAAGATCCTAGAAACAGCCAGGGGAAAGGAGCTCACCGACCAGAACATGCCAGTGGTAGAAGGAATGTCAAG
GACAGTGTTAGTGTAGTGAAGTGACCTCACTGTGTACAACACTGTCTCTGAAGGAACCTCACTTTCTAGAGACA
ATAGAGACTCCAAGACCTGGAAAACCTCTTCCCCAAAGATGTAAGCAGCTCCACTCCACCCAGTGTCAATCAAAG
AGCCGGGTGAGCCGGCTGGCTGGTAGGAAAACAAATGAATCTGTGAGTGAGCCCCGAAAAGGCTTTATGTATTCC
AGAAACACAAATGAAAATCCTCAGGAGTGTTTCAATGCATCAAAGCTACTGACATCTCATGGCATGGGCATCCAG
GTTCCGCTGAATGCAACAGAGTTCAACTATCTCTGTCCAGCCATCATCAACCAAATTGATGCTAGATCTTGTCTG
ATTATACAAGTGAAAAGAAGGCTGAAATCCCTCCAAAGACCTATTATTACAAATAGCCTGGGTTGGTGGTTTTT
ATAGCCATTTCCATCATCAGTTTCTGTCTCTGCTGGGGGTTATCTTAGTGCTCTCATGAATCGGGTGTTTTTT
AAATTTCTCCTGAGTTTCTTGTGGCACTGGCCGTTGGGACTTTGAGTGGTGATGCTTTTTTACACCTTCTTCCA
CATTCTCATGCAAGTCACCACCATAGTCATAGCCATGAAGAACCAGCAATGGAAATGAAAAGAGGACCACTTTTC
AGTCATCTGTCTTCTCAAAACATAGAAGAAAGTGCCATTTTTGATTCCACGTGGAAGGGTCTAACAGCTCTAGGA
GGCCTGTATTTTATGTTTTCTTGTGAACATGTCCTCACATTGATCAAAACAATTTAAAGATAAGAAGAAAAAGAAT
CAGAAGAAACCTGAAAATGATGATGATGTGGAGATTAAGAAGCAGTTGTCCAAGTATGAATCTCACTTTTCAACA
AATGAGGAGAAAGTAGATACAGATGATCGAACTGAAGGCTATTTACGAGCAGACTCACAAGAGCCCTCCCACTTT
GATTTCTCAGCAGCCTGCAGTCTTGGGAAGAAGAAGGGTCATGATAGCTCATGCTCATCCACAGGAAGTCTACAAT
GAATATGTACCCAGAGGGTGCAAGAATAAATGCCATTACATTTCCACGATACACTCGGCCAGTCAGACGATCTC
ATTCACCACCATCATGACTACCATCATATTCTCCATCATCACCACCACCAAAACCACCATCCTCACAGTCACAGC
CAGCGCTACTCTCGGGAGGAGCTGAAAGATGCCGGCGTCGCCACTCTGGCCTGGATGGTGATAATGGGTGATGGC
CTGCACAATTTACGCGATGGCCTAGCAATTGGTGCTGCTTTTACTGAAGGCTTATCAAGTGTTTAAAGTACTTCT
GTTGCTGTGTTCTGTATGAGTTGCCCTCATGAATTAGGTGACTTTGCTGTTCTACTAAAGGCTGGCATGACCGTT
AAGCAGGCTGTCTTTTATAATGCATTGTGAGCCATGCTGGCGTATCTTGAATGGCAACAGGAATTTTATTGGT
CATTATGCTGAAAATGTTTCTATGTGGATATTTGCACCTACTGCTGGCTTATTCATGTATGTTGCTCTGGTTGAT
ATGGTACCTGAAATGCTGCACAATGATGCTAGTGACCATGGATGTAGCCGCTGGGGGTATTCTTTTTTACAGAAT
GCTGGGATGCTTTTGGGTTTTGGAATTATGTTACTTATTTCCATATTTGAACATAAAATCGTGTTCGTATAAAT
TTCTAGTTAAGGTTTTAAATGCTAGAGTAGCTTAAAAAGTTGTATAGTTTCAGTAGGTCATAGGGAGATGAGTTT
GTATGCTGTACTATGCAGCGTTTTAAAGTTAGTGGGTTTTGTGATTTTTGTATTGAATATTGCTGTCTGTTACAAA
GTCAGTTAAAGGTACGTTTTAATATTTAAGTTATTCTATCTTGGAGATAAAATCTGTATGTGCAATTCACCGGTA
TTACCAGTTTATTATGTAAACAAGAGATTTGGCATGACATGTTCTGTATGTTTCAGGGAAAAATGTCTTTAATGC
TTTTTCAAGAACTAACACAGTTATTCTTACTGGATTTTAGGTCTCTGAAGAACTGCTGGTG

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FIGURE 5056

AGTTGGCGACATGGTGGCACCCGCTGCTGGAGACTTCTCACGTGTTTTGCTGCCCAAACCGGGTGCGGGGAGTCCT
GAACTGGAGCTCTGGGCCCAGAGGACTTCTGGCCTTTGGCACGTCCTGCTCCGTGGTGCTCTATGACCCCTGAA
AAGGGTTGTTGTTACCAACTTGAATGGTCACACCGCCGAGTCAATTGCATACAGTGGAATTTGTAACAGGATGG
CTCCCTTCTACTGAATTAGTTTCTGGAGGATCTGATAATCAAGTGATTCACTGGGAAATAGAGGATAATCAGCT
TTTAAAAGCAGTGCATCTTCAAGGCCATGAAGGACCTGTTTATGCGGTGCATGCTGTTTACCAGAGGAGGACATC
AGATCCTGCATTATGTACACTGATCGTTTCTGCAGCTGCAGATTCTGCTGTTTCGACTCTGGTCTAAAAAGGGTCC
AGAAGTAATGTGCCCTTCAGACTTTAAACTTTGGAATGGATTGCTTTGGCTCTCTGCTTATCTTTTTTGCCAAA
TACTGATGTACCAATATTAGCATGTGGCAATGATGATTGCAGAATTCACATATTTGCTCAACAAAATGATCAGTT
TCAGAAAGTGCTTTCTCTCTGTGGACATGAGGATTGGATTAGAGGAGTGGAATGGGCAGCCTTTGGTAGAGATCT
TTTCCTAGCAAGCTGTTTACAAGATTGCCTGATAAGAATATGGAAGCTGTATATAAAGTCAACATCTTTAGAAAC
TCAGGATGACGATAACATAAGACTGAAAGAAAACTTTTACCATAGAAAATGAAAGTGTTAAATAGCATTTC
TGTTACTCTGGAGACAGTGCTAGCCGGTCATGAAAACCTGGGTAAATGCAGTTCACTGGCAACCTGTGTTTTACAA
AGATGGTGTCTTACAGCAGCCAGTGAGATTATTATCTGCTTCCATGGATAAAACCATGATTCTCTGGGCTCCAGA
TGAAGAGTCAGGAGTTTGGCTAGAACAGGTTTCGAGTAGGTGAAGTAGGTGGGAATACTTTGGGATTTTATGATTG
CCAGTTCAATGAAGATGGCTCCATGATCATTGCTCATGCTTTCCACGGAGCGTTGCACCTTTGGAAACAGAATAC
AGTTAACCCAGAGAGTGGACTCCAGAGATTGTCAATTCAGGACACTTTGATGGTGTCCAAGACCTAGTCTGGGA
TCCAGAAGGAGAATTTATTATCACTGTTGGTACTGATCAGACAACCTAGACTTTTTGCTCCATGGAAGAGAAAAGA
CCAATCACAGGTGACTTGGCATGAAATTGCAAGGCCCTCAGATACATGGGTATGACCTGAAATGTTTGGCAATGAT
TAATCGGTTTCAGTTTGTATCTGGAGCAGATGAAAAAGTTCTTCGGGTTTTTTCTGCACCTCGGAATTTTGTGGA
AAATTTTTGTGCCATTACAGGACAATCACTGAATCATGTGCTCTGTAATCAAGATAGTGATCTTCCAGAAGGAGC
CACTGTCCCTGCATTGGGATTATCAAATAAAGCTGTCTTTAGGGGAGATATAGCTTCTCAGCCTTCTGATGAAGA
GGAGCTGTTAACTAGTACTGGTTTTGAGTATCAGCAGGTGGCCTTTCAGCCCTCCATACTTACTGAGCCTCCCAC
TGAGGATCATCTTCTGCAGAATACTTTGTGGCCTGAAGTTCAAAAACCTATATGGGCACGGTTATGAAATATTTG
TGTTACTTGTAACAGTTCAAAGACTCTGCTTGCCTCAGCTTGTAAGGCAGCTAAGAAAGAGCATGCAGCTATCAT
TCTTTGGAACACTACATCTTGGAACAGGTGCAGAATTTAGTTTTCCACAGTTTGACAGTCACGCAGATGGCCTT
CTCACCTAATGAGAAGTTCTTACTAGCTGTTTCCAGAGATCGAACCTGGTCATTGTGGAAAAAGCAGGATACAAT
CTCACCTGAGTTCGAGCCAGTTTTTAGTCTTTTTGCCTTCACCAACAAAATTACTTCTGTGCACAGTAGAATTAT
TTGGTCTTGTGATTGGAGTCCTGACAGCAAGTATTTCTTCACTGGGAGTCGAGACAAAAGGTGGTTGTCTGGGG
TGAGTGGGACTCCACTGATGACTGTATTGAGCACAACATTGGCCCCTGCTCCTCAGTCCTGGACGTGGGTGGGGC
TGTGACAGCTGTCAGCGTCTGCCAGTGCTCCACCCTTCTCAACGATACGTGGTTGCAGTAGGATTGGAGTGTGG
AAAGATTTGCTTATATACCTGGAAAAAGACTGATCAAGTTCCAGAAATAAATGACTGGACCCACTGTGTAGAAAC
AAGTCAAAGCCAAAGTCATACACTGGCTATCAGAAAATTATGCTGGAAGAATTGCAGTGGA AAAA ACTGAACAGAA
GGAAGCAGAAGGTGCTGAGTGTTACACTTTGCAAGCTGTGGTGAAGATCACACTGTGAAGATACACAGAGTCAA
TAAATGTGCACGTTAATGG

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FIGURE 5057

MVAPVLETSHVFCCPNRVRGVLNWSSGPRGLLAFGTSCSVVLYDPLKRVVVTNLNGHTARVNCIQWICKQDGSPS
TELVSGGSDNQVIHWEIEDNQLLKAVHLQGHEGPVYAVHAVYQRRSDPALCTLIVSAAADSAVRLWSKKGPEVM
CLQTLNFGNGFALALCLSLPNTDVPILACGNDDCRIHIFAQQNDQFQKVLSLCGHEDWIRGVWAAFGRLFLA
SCSQDCLIRIWKLYIKSTSLETQDDDNIRLKENTFTIENESVKIAFAVTLETVLAGHENWVNAVHWQPVFYKDG
LQQPVRLLSASMDKTMILWAPDEESGVWLEQVRVGEVGGNTLGFYDCQFNEDGSMIIAHAFHGALHLWKQNTVNP
REWTPEIVISGHFDGVQDLVWDFEGEFIITVGTDTTRLFAPWKRKQSQVTWHEIARPQIHGYDLKCLAMINRF
QFVSGADEKVLRVFSAPRNFVENFCAITGQSLNHVLCNQDSDLPEGATVPALGLSNKAVFQGDIA SQPSDEEELL
TSTGFEYQQVAFQPSILTEPPTEDHLLQNTLWPEVQKLYGHGYEIFCVTCNSSKTLASACKAAKKEHAAIILWN
TTSWKQVQNLVHSLTIVTQMAFSPNEKFLAVSRDRTWSLWKKQDTISPEFEPVFSLF AFTNKITSVHSRIIWSC
DWSPDSKYFFTGSRDKKVVWGECDSTDDCIEHNIGPCSSVLDVGGAVTAVSVCPVLHPSQRYVVAVGLECGKIC
LYTWKKTDQVPEINDWTHCVETSQSQSHTLAIRKLCWKNC SGKTEQKEAEGAEWLHFASCGEDHTVKIHRVNKCA
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FIGURE 5058

CTCTCCTCCCGCCGCCCAAGATGCCGAAAGGAAAGAAGGCCAAGGGAAAGAAGGTGGCTCCGGCCCCCTGCTGTCTG
TGAAGAAGCAGGAGGCTAAGAAAGTGGTGAATCCCCTGCTTGAGAAAAGGCCTAAGAATTTTGGCATTGGACAGG
ACATCCAGCCCCAAAAGAGACCTCACCCGCTTTGTGAAATGGCCCCGCTATATCAGGTTGCAGCGGCAGAGAGCCA
TCCTCTATAAGCGGCTGAAAGTGCCCTCCTGCGATTAAACAGTTCACCCAGGCCCTGGACCGCCAAACAGCTACTC
AGCTGCTTAAGCTGGCCCCACAAATACAGACCAGAGACAAAGCAAGAGAAGAAGCAGAGACTGCTGGCCCCGGGAGG
AGAAGAAAGCTGCTGGCAAAGGGGACGTCCCCACGAAAAGACCACCTGTCCTTCGAGCAGGAGTTAATACCGTCA
CCACCTTGGTGGAGAACAAGAAAGCTCAGCTGGTGGTAATTGCACATGACGTGGATCCCATCGAGCTGGTTGTCT
TCTTGGCTGCCCTGTGTCTGTAATAATGGGGGTCCCTTACTGCATTATCAAGGGGAAGGCAAGACTGGGACGTCTAG
TCCACAGGAAGACCTGCACCACTGTGCGCTTCACACAGGTGAACTCGGAAGACAAAGGCACTTTGGCTAAGCTGA
TGGAAGCTATCAGGACCAATTACAATGACAGATACGATGAGATCCGCCGTCACTGGGGCGGCAACGTCTGGGTC
CTAAGTCTGTGGCTCGTATCGCCAAGCTCGAAAAGGCAAAGGCTAAAGACCTTGCCACTAAACTGGGTTAAATGT
ACACTGTTGAGTTTTCTGTACATAAAAAATAATTAAATAATACAAATTTTCTTC

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FIGURE 5059

MPKGKKAKGKKVAPAPAVVKKQEAKKVVNPLLEKRPKNFGIGQDIQPKRDLTRFVKWPRYIRLQRQRAILYKRLK
VPPAINQFTQALDRQTATQLLKLAKYRPETKQEKQRLAREEKAAGKGDVPTKRPPVLRAGVNTVTTLVENK
KAQLVVIAHDVDP IELVVFLAALCRKMGVPYCI IKGKARLGRLVHRKTCTTVAFTQVNSEDKGTLAKLMEAIRTN
YNDRYDEIRRHWGGENVLGPKSVARIAKLEKAKAKDLATKLG

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FIGURE 5060

GGCACGAGGGCGGGGCGCATCTCCCGCTAGGAGTTCCTAGTAAAGTGGCGGGAGCCGCAGCTATGGAGCCGCAGG
AGGAGAGAGAAACGCAGGTTGCTGCGTGGTTAAAAAAATATTTGGAGATCATCCTATTCCACAGTATGAGGTGA
ACCCACGGACCACAGAGATTTTACATCACCTTTCAGAACGCAACAGGGTCCGGGACAGGGATGTCTACCTGGTAA
TAGAGGACTTGAAGCAGAAAGCAAGTGAATACGAGTCAGAAGCCAAGTATCTTCAAGACCTTCTCATGGAGAGTG
TGAATTTTTCCCCCGCCAATCTCTCTAGCACTGGTTCAGGTATCTGAATGCTTTGGTTGACAGTGCGGTGGCCC
TTGAAACAAAGGATACCTCGCTAGCTAGTTTTATCCCTGCAGTGAATGATTTGACCTCTGATCTCTTTCGTACCA
AATCCAAAAGTGAAGAAATCAAGATTGAAGTGGAAAACTTGAAAAAATTTAACTGCAACTTTAGTATTAGAAA
AATGTCTACAAGAGGATGTCAAGAAAGCAGAGTTGCATCTGTCTACAGAAAGGGCCAAAGTTGATAATCGTCGTC
AGAACATGGACTTTCTAAAAGCAAAGTCAGAGGAATTCAGATTGGAATCAAGGCTGCAGAGGAGCAACTTTCAG
CCAGAGGCATGGATGCTTCTCTGTCTCATCAGTCCTTAGTAGCACTATCAGAGAACTGGCAAGATTAAAGCAAC
AGACTATACCTTTGAAGAAAAAATTGGAGTCCTATTTAGACTTAATGCCGAATCCGTCTCTTGCTCAAGTAAAA
TTGAAGAAGCAAAGCGAGAAGTAGATAGCATTGAAGCTGAAGTTACAAGAAGAGTAGACATGATGGAAGTGTGAC
AAAAGCCAAATAAACATCCTTTTCCCTAACAAAGTAAATTGAATAGGACTTTACAGAGTTCTTTTTCTCTTGGC
ATTTCCCTAATAACAAAACCTTTCTGTGTTCTTAGATTACAGAATATCATAATTGATAGAATATGGTTTCTTACTGT
GTGTTGCATTTTTGTGCCCAAATACATAGTTTTCATATTAAAAAGCCTTTTCTCTTAAAAAAAAAAAAAAAAAAAA
AA

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FIGURE 5061

MEPQEERETQVAAWLKKIFGDHPQPQYEVNPRTEILHHLSENRVRDRDVYLVIEDLKQKASEYESEAKYLQDL
LMESVNFSPANLSSSTGSRYLNALVDSAVALETKDTSASFIPAVNDLTSDLFRTKSKSEEIKIELEKLEKNLTAT
LVLEKCLQEDVKKAEHLSTERAKVDNRRQNMDFLKAKSEEFRTFGIKAAEEQLSARGMDASLSHQSLVALSEKLA
RLKQQTIPLKKKLESYLDLMPNP SLAQVKIEEAKRELDSEAELTRRVDMMEL

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FIGURE 5062

GTCCAGTCAGTCCGGAGGCTGCGGCTGCAGAACTACCGCCTGCGGAGTAACTGCAAAGATGCTGTCCGTGCGCG
TTGCTGCGGCCGTGGTCCGCGCCCTTCCTCGGCGGGCCGGACTGGTCTCCAGAAATGCTTTGGGTTTCATCTTTCA
TTGCTGCAAGGAACCTCCATGCCTCTAACACTCATCTTCAAAGACTGGGACTGCTGAGATGTCTCTATTCTTG
AAGAGCGTATTCTTGGAGCTGATACCTCTGTGATCTTGAAGAACTGGGCGTGTCTTAAGTATTGGTGATGGTA
TTGCCCGCGTACATGGGCTGAGGAATGTTCAAGCAGAAGAAATGGTAGAGTTTTCTTCAGGCTTAAAGGGTATGT
CCTTGAACCTTGAACCTGACAATGTTGGTGTGTCGTGTTTGGAAATGATAAACTAATTAAGGAAGGAGATATAG
TGAAGAGGACAGGAGCCATTGTGGACGTTCCAGTTGGTGAGGAGCTGTTGGGTCGTGTAGTTGATGCCCTTGGTA
ATGCTATTGATGGAAAGGGTCCAATTGGTTCCAAGACGCGTAGGCGAGTTGGTCTGAAAGCCCCCGGTATCATTC
CTCGAATTTAGTGCAGGGAACCAATGCAGACTGGCATTAAAGGCTGTGGATAGCTTGGTGCCAATTGGTCGTGGTC
AGCGTGAACCTGATTATTGGTGACCGACAGACTGGGAAAACCTCAATTGCTATTGACACAATCATTAAACCAGAAAC
GTTTCAATGATGGATCTGATGAAAAGAAGAAGCTGTACTGTATTTATGTTGCTATTGGTCAAAAGAGATCCACTG
TTGCCCAGTTGGTGAAGAGACTTACAGATGCAGATGCCATGAAGTACACCATTGTGGTGTGCGCTACGGCCTCGG
ATGCTGCCCCACTTCAGTACCTGGCTCCTTACTCTGGCTGTTCCATGGGAGAGTATTTTAGAGACAATGGCAAAC
ATGCTTTGATCATCTATGACGACTTATCCAAACAGGCTGTGTGCTTACCGTCAGATGTCTCTGTTGCTCCGCCGAC
CCCCTGCTGTGAGGCCATCCTGGTGATGTGTTCTACCTACACTCCCGGTTGCTGGAGAGAGCAGCCAAAATGA
ACGATGCTTTTGGTGGTGGCTCCTTGACTGCTTTGCCAGTCATAGAAACACAGGCTGGTGATGTGTCTGCTTACA
TTCCAACAAATGTCATTTCCATCACTGACGGACAGATCTTCTTGGAAACAGAATTGTTCTACAAAGGTATCCGCC
CTGCAATTAACGTTGGTCTGTCTGTATCTCGTGTGCGGATCCGCTGCCCAAACAGGGCTATGAAGCAGGTAGCAG
GTACCATGAAGCTGGAATTGGCTCAGTATCGTGAGGTTGCTGCTTTTGGCCAGTTCGGTTCTGACCTCGATGCTG
CCACTCAACAACCTTTTGAATCGTGCGGTGCGTCTAACTGAGTTGCTGAAGCAAGGACAGTATTCTCCCATGGCTA
TTGAAGAACAAGTGGCTGTTATCTATGCGGGGTGAAGGGGATATCTTGATAAACTGGAGCCCAGCAAGATTACAA
AGTTTGAGAATGCTTTCTGTCTCATGTCGTCAGCCAGCACCAGCCTTGTGGGCACTATCAGGGCTGATGGAA
AGATCTCAGAACAAATCAGATGCAAAGCTGAAAGAGATTGTAACAAATTTCTTGGCTGGATTGGAAGCTTAACTC
CTGTGGATTACATCAAATACCAGTTCAGTTTTGTCATTGTTCTAGTAAATTAGTTCATTGTAAAAGGGTTAC
TCTCATACTCCTTATGTACAGAAATCACATGAAAAATAAAGGTCCATAATGC

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FIGURE 5063

MLSVRVAAAVVRALPRRAGLVSRNALGSSFIAARNFHASNTHLQKTGTAEEMSSILEERILGADTSVDLEETGRVL
SIGDGIARVHGLRNVQAEEMVEFSSGLKGMSLNLEPDNVGVVVFNDKLIKEGDIVKRTGAIVDVPVGEELLGRV
VDALGNAIDGKGPIGSKTRRRVGLKAPGIIPRISVREPMQTGIKAVDSLVP IGRGQRELIIGDRQTGKTSIAIDT
IINQKRFNDGSDEKKKLYCIYVAIGQKRSTVAQLVKRLTDADAMKYTIVVSATASDAAPLQYLAPYSGCSMGEYF
RDNGKHALIIYDDLKQAVAYRQMSLLRRPPGREAYPGDV FYLHSRLLERA AKMND AFGGSLTALPVIETQAG
DVSAYIPTNVISITDGQIFLETIFYKGIRPAINVGLSVSRVGSAAQTRAMKQVAGTMKLELAQYREVA AFAQFG
SDLDAATQQLLSRGVRLTELLKQGQYSPMAIEEQVAVIYAGVRGYLDKLEPSKITKFENAFLSHVVSQHALLGT
IRADGKISEQSDAKLKEIVTNFLAGFEA

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FIGURE 5064

CCATGGACTTTATCAACGACGCCACCGACGTCAACGATGCCCTGGGCTATGTGACCCGCTTCTACCGCGAGGCCT
CGTCCGGCGCTGCCAAGAAGAGGCTGCTGCTCTTCTCAGATGGCAACTCGCAGGGCGCCACGCCCCTGCCATCG
AGAAGGCCGTGCAGGAAGCCCAGCGGGCAGGCATCGAGATCTTCGTGGTGGTCGTGGGCGCCAGGTGAATGAGC
CCCACATCCGCGTCTTGGTCACCGGCAAGACGGCCGAGTACGACGTGGCCTACGGCGAGAGCCACCTGTTCCGTG
TCCCCAGCTACCAGGCCCTGCTCCGCGGTGTCTTCCACCAGACAGTCTCCAGGAAGGTGGCGCTGGGCTAGCCCA
CCCTGCACGCCGGCACCAACCCTGTCCTCCCACCCCTCCCCACTCATCACTAAACAGAGTAAAATGTGATGCGA
ATTTTCCCGACCAACCTGATTCGCTAGATTTTTTTCCTTCTGTGTTTTTTTCTGAACCATATCCATGTTGCTGAC
TTTTCAAATAAAGTTTTTCACTCCTC

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FIGURE 5065

CTCAGCCCCAGCTCCAACAGAAGCAGCCCGGCCACCCACTCCCCGTGACCGCCACGCCACATGGACACAGCCCT
CGCCCTCCGCCCCGGCTTTTCTCTGCCTTTCTACCGACCATGTGACCCCGCACCAGCCCTGCCCCACCTGCCCT
CCCGGGCAGTACTGGGGACCTTCCCTGGGGGACGGGGAGGGAGGAGGCAGCGACTCCTTGGACAGAGGCCTGGGC
CCTCAGTGGACTGCCTGCTCCACAGCCTGGGCTGACGTGAGAGGCCGAGGCCAGGAAGTGAAGTGGGCCCCCTGG
TCCTGGGTCTCAGGATGGGTCTGGGGGCTCGTGTTCATCAAGACACCCCTCTGCCCAGCTCACCACATCTTCA
TCACCAGCAAACGCCAGGACTTGGCTCCCCATCCTCAGAACTCACAAGCCATTGCTCCCCAGCTGGGGAACCTC
AACCTCCCCCCTGCCCTCGGTGGTGACAGAGGGGGTGGGACAGGGGCGGGGGGTCCCCCTGTACATACCCTGCC
ATACCAACCCAGGTATTAATTCTCGCTGGTTTTGTTTTTATTTTAATTTTTTTGTTTTGATTTTTTTAATAAGA
ATTTTCATTTTAAGCACATTTATACTGAAGGAATTTGTGCTGTGTATTGGGGGGAGCTGGATCCAGAGCTGGAGG
GGGTGGGTCCGGGGGAGGGAGTGGCTCGGAAGGGGCCCCCACTCTCCTTTTCATGTCCCTGTGCCCCCAGTTCTC
CTCCTCAGCCTTTTCCTCCTCAGTTTTCTCTTTAAACTGTGAAGTACTAACTTTCCAAGGCCTGCCTTCCCCTC
CCTCCCACTGGAGAAAGCCGCCAGCCCCCTTCTCCCTCTGCCTGACCACTGGGTGTGGACGGTGTGGGGCAGCCCT
GAAAGGACAGGCTCCTGGCCTTGGCACTTGCCTGCACCCACCATGAGGCATGGAGCAGGGCATAGCAAGGGCCCC
GGGACAGAGTTTTCCCAGACCTGGCTCCTCGGCAGAGCTGCCTCCCGTCAGGGCCACATCATCTAGGCTCCCCA
GCCCCCACTGTGAAGGGGCTGGCCAGGGGCCCCGAGCTGCCCCCACCCCGGCTCAGCCACCAGCACCCCATAG
GGCCCCCAGACACCACACACATGCGCGTGCGCACACACACAAACACACACACTGGACAGTAGATGGGCCGACA
CACACTTGGCCCGAGTTCTTCCATTTCCCTGGCXTGGCCCCCACCCCAACCTGTCCCACCCCGTGGCCCCCTC
CTTACCCCGCAGGACGGGCCTACAGGGGG

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FIGURE 5066

AGGTTTCGATACAAGAGGCTGTTTTCTAGCGTGGCTTGCTGCCTTTGGTAAGAACATGTCGTCCATCTTGCCATT
CACGCCGCCAGTTGTGAAGAGACTGCTGGGATGGAAGAAGTCAGCTGGTGGGTCTGGAGGAGCAGGCGGAGGAGA
GCAGAATGGGCAGGAAGAAAAGTGGTGTGAGAAAGCAGTGAAAAGTCTGGTGAAGAAGCTAAAGAAAACAGGACG
ATTAGATGAGCTTGAGAAAGCCATCACCCTCAAACTGTAATACTAAATGTGTTACCATACCAAGCACTTGCTC
TGAAATTTGGGGACTGAGTACACCAAATACGATAGATCAGTGGGATACAACAGGCCTTTACAGCTTCTCTGAACA
AACCAGGTCTCTTGATGGTCTCTCCAGGTATCCCATCGAAAAGGATTGCCACATGTTATATATTGCCGATTATG
GCGCTGGCCTGATCTTCACAGTCATCATGAAGTCAAGGCAATTGAAAAGTGCATATGCTTTTAACTCTTAAAAA
GGATGAAGTATGTGTAAACCTTACCCTATCAGAGAGTTGAGACACCAAGTTTGCCTCCAGTATTAGTGCCCCG
ACACACCGAGATCCTAACAGAACTTCCGCCTCTGGATGACTATACTCACTCCATTCCAGAAAACACTAACTTCCC
AGCAGGAATTGAGCCACAGAGTAATTATATTCCAGAAACGCCACCTCCTGGATATATCAGTGAAGATGGAGAAAC
AAGTGACCAACAGTTGAATCAAAGTATGGACACAGGCTCTCCAGCAGAACTATCTCCTACTACTCTTTCCCCTGT
TAATCATAGCTTGGATTTACAGCCAGTTACTTACTCAGAACCTGCATTTTGGTGTTCGATAGCATATTATGAATT
AAATCAGAGGGTTGGAGAAACCTTCCATGCATCACAGCCCTCACTCACTGTAGATGGCTTTACAGACCCATCAAA
TTCAGAGAGGTTCTGCTTAGGTTTACTCTCCAATGTTAACCAGAAATGCCACGGTAGAAATGACAAGAAGGCATAT
AGGAAGAGGAGTGCCTTATACTACXATAGGTGGGGAAGTTTTTGTGAGTGCCTAAGTGATAGTGCAATCTTTG
TGCAGAGCCCCAATTGTAATCAGAGATATGGCTGGCACCCTGCAACAGTGTGTAAAATTCCACCAGGCTGTAATC
TGAAGATCTTCAACAACCAGGAATTTGCTGCTCTTCTGGCTCAGTCTGTTAATCAGGGTTTTGAAGCCGTCTATC
AGCTAACTAGAAATGTGCACCATAAGAATGAGTTTTGTGAAAGGTGGGGAGCAGAATACCGAAGGCAGACGGTAA
CAAGTACTCCTTGCTGGATTGAACCTCATCTGAATGGACCTCTACAGTGGTTGGACAAAGTATTAAGTCAAGTGG
GATCCCCCTTCAGTGCCTTGCTCAAGCATGTCTAAAGCTTCACCAATCAAGTCCCATGAAAAGACTTAATGTAAC
AACTCTTCTGTATAGCATTTGTGTGTGGTCCCTATGGACTGTTTACTATCCAAAAGTTCAAGAGAGAAAACAGCA
CTTGAGGTCTCATCAATTAAAGCACCTTGTGGAATCTGTTTCCCTATATTTGAATATTAGATGGGAAAATTAGTGT
CTAGAAATACTCTCCCATTAAGAGGAAGAGAAGATTTTAAAGACTTAATGATGTCTTATTGGGCATAAACTGA
GTGTCCCAAAGGTTTTATTAATAACAGTAGTAGTTATGTGTACAGGTAATGTATCATGATCCAGTATCACAGTATT
GTGCTGTTTATATACATTTTTAGTTTTGCATAGATGAGGTGTGTGTGTGCGCTGCTTCTGATCTAGGCAAACCTT
TATAAAGTTGCAGTACCTAATCTGTTATTCCCACTTCTCTGTTATTTTTGTGTGTCTTTTTTAAATATATAATATA
TATCAAGATTTTCAAATTATTTAGAAGCAGATTTTCTGTAGAAAACTAATTTTTCTGCCTTTTACCAAAAATA
AACTCTTGGGG

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FIGURE 5067

TCCTCTTTCCCTAAGCAGCCTGAGGGTTGACTGGATTGGTGAGGCCCGTGTGGCTACTTCTGTGGAAGCAGTGCT
GTAGTTACTGGAAGATAAAAGGAAAGCAAGCCCTTGGTGGGGGAAAGTATGGCTGCGATGATGGCATTTCCTAG
GACACCTTTGGATTAATAATGAAAACAACACTACTCTCTGAGCAGCTGTTTGAATCATCTGATATTTATACTGAATG
AGTTACTGTAAGTACGTATTGACAGAATTACACTGTACTTTCTCTAGGTGATCTGTGAAAATGGTTTCGCTATTCT
ACTTGACCCGGAGAACCCACGAAATCATGCAAATCAAGAGGTTCCAATCTTCGTGTTCACTTTAAGAACAACACTCG
TGAAACTGCTCAGGCCATCAAGGGTATGCATATACGAAAAGCCACGAAGTATCTGAAAGATGTCACTTTACAGAA
ACAGTGTGTACCATTTCCGACGTTACAATGGTGGAGTTGGCAGGTGTGCGCAGGCCAAGCAATGGGGCTGGACACA
AGGTCGGTGGCCCAAAAAGAGTGCTGAATTTTTGCTGCACATGCTTAAAAACGCAGAGAGTAATGCTGAACTTAA
GGGTTTAGATGTAGATTCTCTGGTCATTGAGCATATCCAAGTGAACAAAGCACCTAAGATGCGCCGCCGGACCTA
CAGAGCTCATGGTCGGATTAACCCATACATGAGCTCTCCCTGCCACATTGAGATGATCCTTACGGAAAAAGGAACA
GATTGTTCTAAACCAGAAGAGGAGGTTGCCCAGAAGAAAAAGATATCCCAGAAAGAACTGAAGAAACAAAAACT
TATGGCACGGGAGTAAATTTCAGCATTAAATAAATGTAATTAAAGGAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 5068

MVRYSLDPENPTKCKSRGSNLRVHFKNTRETAQAIGMHIRKATKYLKDVTILQKQCVPFRRYNGGVGRCAQAKQ
WGWTQGRWPKKSAEFLHMLKNAESNAELKGLDVDSLVEHIQVNKAPKMRRRTYRAHGRINPYMSSPCHIEMIL
TEKEQIVPKPEEEVAQKKKISQKKLKKQKLMARE

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FIGURE 5069

GCTGAGCATCGCCAGGGCGGGCGGCAGGGCGCGGCCTCTCCGCCGGGTGTACCTCCTGTGCGGGCGCGAGACCTC
TGGTGAAAGAAAAGATGTTGTCCCGGTTAAGAGTAGITTCACCACTTGTACTTTGGCATGTCGACATTTGCACA
TAAAAGAAAAAGGCAAGCCACTTATGCTGAACCCAAGAACAACAAGGGAATGGCATTCTTACAAAGAACGAC
AAATGCTTGGTCTTCAAGGACTTCTACCTCCCAAAATAGAGACACAAGATATTCAAGCCTTACGATTTCATAGAA
ACTTGAAGAAAATGACTAGCCCTTTGGAAAAATATATCTACATAATGGGAATACAAGAAAGAAATGAGAAATGT
TTTATAGAATACTGCAAGATGACATTGAGAGITTAATGCCAATTGTATATACACCGACGGTTGGTCTTGCCTGCT
CCCAGTATGGACACATCTTTAGAAGACCTAAGGGATTATTTATTTTCGATCTCAGACAGAGGTCATGTTAGATCAA
TTGTGGATAACTGGCCAGAAAATCATGTTAAGGCTGTTGTAGTGACTGATGGAGAGAGAATTCGGGTCTTGAG
ATCTGGGTGTCTATGGAATGGGAATTCAGTAGGAAAATTTGTTTGTATACAGCTTGTGCAGGAATACGGCCTG
ATAGATGCCTGCCAGTGTGTATTGATGTGGGAATGATAATATCGCACTCTTAAAAGACCCATTTTACATGGGCT
TGTACCAGAAACGAGATCGCACACAACAGTATGATGACCTGATTGATGAGTTTATGAAAGCTATTACTGACAGAT
ATGGCCGGAACACACTCATTTCAGTTCGAAGACTTTGGAAATCATAATGCATTTCAGGTTCTTGAGAAAGTACCGAG
AAAAATATTGTACTTTCAATGATGATATTCAAGGGACAGCTGCAGTAGCTCTAGCAGGTCTTCTTGACGACAAA
AAGTTATTAGTAAACCAATCTCCGAACACAAAATCTTATTCCTTGGAGCAGGAGAGGCTGCTCTTGGAATTGCAA
ATCTTATAGTTATGTCTATGGTAGAAAATGGCCTGTGAGAACAGAGGCACAAAAGAAAATCTGGATGTTTGACA
AGTATGGTTTATTAGTTAAGGGACGGAAAGCAAAAATAGATAGTTATCAGGAACCATTTACTCACTCAGCCCCAG
AGAGCATACCTGATACTTTTGAAGATGCAGTGAATATACTGAAGCCTTCACTATTATTGGAGTTGCAGGTGCTG
GCCGTCTTTTCACTCCTGATGTAATCAGAGCCATGGCCTCTATCAATGAAAGGCCTGTAATATTTGCATTAAAGTA
ATCCTACAGCACAGGCAGAGTGCACGGCTGAAGAAGCATATACACTTACAGAGGGCAGGTGTTTGTGTTGCCAGTG
GCAGTCCATTTGGGCCAGTGAACCTTACAGATGGGCGAGTCTTTACACCAGGTCAAGGAAACAATGTTTATATTT
TTCCAGGTGTGGCTTTAGCTGTTATTCTCTGTAACACCCGGCATATTAGTGACAGTGTTTTCTAGAAGCTGCAA
AGGCCCTGACAAGCCAATTGACAGATGAAGAGCTAGCCCAAGGGAGACTTTACCCACCGCTTGCTAATATTCAGG
AAGTTTCTATTAAACATTGCTATTAAAGTTACAGAATACCTATATGCTAATAAAATGGCTTTCCGATACCCAGAAC
CTGAAGACAAGGCCAAATATGTTAAAGAAAGAACATGGCGGAGTGAATATGATTCCCTGCTGCCAGATGTGTATG
AATGGCCAGAATCTGCATCAAGCCCTCCTGTGATAACAGAAATAGAAAGCACTCCCTGATAAATACTTTCTGTGCT
CCAGGGAACCCCTTTTTTTCAGACAAGAAGAGATAATGTCTTCAGTTTTAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 5070

MLSRLRVVSTTCTLACRHLHIKEKGKPLMLNPRTNKGMAFTLQERQMLGLQGLLPKTIETQDIQALRFHRNLKKM
TSPLEKYIYIMGIQERNEKLFYRILQDDIESLMPIVYTPTVGLACSQYGHIFRRPKGLFISISDRGHVRSIVDNW
PENHVKA VVVTDGERILGLGDLGVYGMGIPVGKLCLYTACAGIRPDRCLPVCIDVGTDNIALLKDPFYMGLYQKR
DRTQQYDDLIDEFMKAITDRYGRNTLIQFEDFGNHNAFRFLRKYREKYCTFNDDIQGTA AVALAGLLAAQKVISK
PISEHKILFLGAGEAALGIANLIVMSMVENGLSEQEAQKKIWMFDKYGLLVKGRKAKIDSYQEPFTHSAPESIPD
TFEDAVNILKPSTIIGVAGAGRLFTP DVIRAMASINERPVIFALSNPTAQAECTAE EAYTLTEGRCLFASGSFFG
PVKLTIDGRVFTPGQGNNVYIFPGVALAVILCNTRHISDSVFLEAAKALTSQLTDEELAQGRLYPPLANIQEV SIN
IAIKVTEYLYANKMAFRYPEPEDKAKYVKERTWRSEYDSLDPDVYEWPE SASSPPVITE

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FIGURE 5071

GCTAGGGCGCGGCGGGCGGTTTGAATTTTGCTTACAGAGTCCCGTCTCACCATCCTGGGCTTCCAACGGAGACTG
CGGTATCCGCAGCTGGAGACCCAGCGGCGAGTAGCCTTTTGCTCCCGGACGGACTTGAGGTTGGAGTCTGTGTGT
TGGGGACCC TGCCTTTGGGAAGCGCCGAGAGGCTTAAAGGATGGCCTCGTCAGATCTGGAACAATTATGCTCTCA
TGTTAATGAAAAGATTGGCAATATTAAGAAAACCTTATCATTAAAGAACTGTGGCCAGGAACCTACCTTGAAAAC
TGTATTAAATAAAATAGGAGATGAGATCATTGTAATAAATGAACCTTCTAAATAAATTGGAATTGGAAATTCAGTA
TCAAGAACAAACCAACAATTCACTCAAGGAACCTCTGTGAATCTCTTGAAGAAGATTACAAAGACATAGAACATCT
TAAAGAAAACGTTCCCTTCCCATTTGCCTCAAGTAACAGTAACCCAGAGCTGTGTTAAGGGATCAGATCTTGATCC
TGAAGAACCAATCAAAGTTGAAGAACCTGAACCCGTAAAGAAGCCTCCCAAAGAGCAAAGAAGTATTAAGGAAAT
GCCATTTATAACTTGTGATGAGTTCAATGGTGTTCCTTCGTACATGAAATCCCGCTTAACCTATAATCAAATTAA
TGATGTTATTAAAGAAATCAACAAGGCAGTAATTAGTAAATATAAAATCCTACATCAGCCAAAAAGTCTATGAA
TTCTGTGACCAGAAATCTCTATCACAGATTTATTGATGAAGAAACGAAGGATACCAAAGGTCGTTATTTTATAGT
GGAAGCTGACATAAAGGAGTTCACTTTGAAAGCTGACAAGAAGTTTCACGTGTTACTGAATATTTTACGACA
CTGCCGGAGGCTATCAGAGGTCGAGGGGGAGGACTTACTCGTTATGTTATAACCTGAGTCCCTTGTGAACTTTT
GAACATACCAACAGGGTATAGAGTATAGAGGCTATTTCTATAATTTTCTTATATATAATTTTTTAACTTTTAAAT
CTTTTTTGTTCCTTTTTTTTTTTTTTTTGTAGACAGGATCTTGCTTTGTACCCAGGGGCTTGCTTTGTACGCAGG
CTAGAGTGCAGTGGCGCAAACATGGCTCACTGCAGCCTCAACCTCCCAGGCTCAAGTGATCCTCCACCTCAGCC
CCCTGAATGGCTGGGACTACAAGCGTGCGCCACCATGCCTGGCTAATTTTTTGTATTTTTTGGAGAGATGGGGTTT
CACCATGTTGCCTAGGCTGGTCTTGAGCTCCTGAGCTCAAACAATCCACCCTCCTCAGCCTCCCAAAGTGCTGGG
ATTACAGGCTTGAGCCACCACACCTGACCTATTCTTTGTTTCTTATAAAAAATAAACTTTTTTGGATAAAGCTTAT
TTCTTGTTTTTTTCTTTTTCTTTTTTTTTTTTTTTTGTAGACAGTCTCGCTCTTTTACCCAGGCCGGACTGCAGCGG
CGCTATCTCGGCTCACTGCAAACTCTGCCTCCCAGGTTACAGCCATCCTCCTGCCTCAGCTACTCAGGAGAATTG
CTTGAACCTAGGAGGTGGAGGTTGCAGTGAGCCGAGATCGTGCCACTGCACTCCAGTCTGGGCAACAGAGCGAGA
CTCCATCTCAGAAAAAAGAAAAAAGACTGGGTACAGATGTGATATTGGAAGAAAAAGATCAAGCTGATGAGGT
TAGGATACCCAGGCCCTTTGGACTTAAAGATCACTAGTGTCTAAATTCATCGATGGCATTTCAGTCTATAGGTA
AACTTCTTGGAAGCTGGATTTGGAGACAGTTTATCATCTGATTATTGGGCTTTTCGTATAGGTCCTTAGGGAGCAG
CTTACCTGAAATGCATTTAGTGATACACCAGTCTGTAACTTCAACCTGTAATGAAAGTGTAATAAATGTACATTG
AGTTGATGTGATAATGTGATATAATAAGAAATATATATTTGATCTTCCTATCTAGTTCCTTGTTTACAGAGCTCCTA
AAACCTTGTAATTTCCAAAGTGATGGAGTACATCTTTTGTCTAGTATTTGGTCTTTGACCCAGTTCCTGACA
CAAAGCTCCTAAATTCCTTTAAATTTCCAGTGATAGGAGAATTTTTTGTCTAATGAGGTCACCTCTTGATGGG
ACCTGGATAACTCAGGATGGGGGCTGCTCACAAGACCACATCATGATTGGAAGTTTCAAACCTTCAGTCTCCCA
CCTCCAGAGAGGGGAGAGGGGCTGGAGATTTGTGTCAATAATCCATCAGGCCTATGTCAACAAGACATAATCCGT
TAACTATGGAGTTCAGGGAGCTTCAGGGTTGGCAAACATTTTGATGTGCCAGGAAGGTGACGCACTCCAGCTTTA
TGAAGTCAGCAAGTCCTGTGCTCAGGATGCTTCTGGACCTTGCCCCAGGTACCCCTTCATGTGGCTGTTGTTTAT
CTGTATCCTTTGTAGTAGCCTTAAAAATAAACTGTTAAACAC

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FIGURE 5072

CCGACATGTTGAGTCATAAGACGCGTCGGTGTTCAGTCTGTGTCCTTGGAGGTGACCAGGGCCACTGCAGGCAT
GGTGTCTAGCAGAGCTGTACGTCTCTGACCGAGAGGGAAGCGATGCCACGGGAGATGGAACCAAGGAGAAACCATT
TAAACAGGTCTAAAGGCTTTGATGACAGTAGGGAAAGAACCATTTCCTACCATTTACGTAGATTACAAAAAGA
AAATGAGAGGTGGAATGTTATTTCTAAATCACAGTTGAAGAACATTAAAAAGATGTGGCATAGGGAACAAATGAA
GAGTGAATCCCGGGAAAAGAAAGAGGCAGAAGATAGTTTACGAAGAGAAAAGAACCTGGAAGAAGCAAGAAGAT
TACCATTAAAAATGATCCAAGTCTCCAGAGCCAAAATGTGTGAAGATTGGTGCGTTAGAAGGATATAGAGGCCA
AAGAGTAAAGGTGTTTGGCTGGGTCCACAGGCTGCGCAGGCAAGGAAAGAATTTAATGTTTCTGGTGTTGCGAGA
TGGTACAGGTTATCTTCAGTGTGCTTGGCGGATGAGTTGTGTGTCAGTGCTACAATGGAGTTCTCTTGTCACGGA
GAGCAGTGTTCAGTGTATGGAATGCTAAATCTTACCCCAAAGGGCAAGCAGGCTCCAGGTGGCCATGAGCTGAG
TTGTGACTTCTGGGAACATAATTGGGTGGCCCTGCTGGAGGAGCTGACAACCTGATCAATGAGGAGTCTGACGT
TGATGTCCAGCTCAACAACAGACACATGATGATCCGAGGAGAAAACATGTCCAAAATCCTAAAAGCACGATCCAT
GGTCACCAGGTGCTTTAGAGATCACTTCTTTGATAGGGGGTACTATGAAGTTACTCCTCCAACATTAGTGCAAAC
ACAAGTAGAAGGTGGTGCCACACTCTTCAAGCTTGACTATTTTGGGGAAGAGGCATTTTGGACTCAATCCTCTCA
GTTGTACTTGGAGACCTGCCTCCAGCCCTGGGAGATGTTTTTGTATTGCTCAGTCATACCGGGCAGAGCAGTC
CAGAACACGAAGGCACCTGGCTGAGTACACTCACGTGGAAGCTGAGTGTCTTTTCTGACTTTTGACGACCTCCT
GAACCGGTTGGAGGACTTGGTTTGTGATGTGGTAGATCGAATATTGAAGTCACCTGCAGGGAGCATAGTGATGA
GCTCAACCCGAACCTTCAGCCCCCAACGGCCCTTCAAACGGATGAACATTTCAGATGCTATCGTTTGGCTAAA
AGAACATGATGTAAAGAAAGAAGATGGAACCTTCTATGAATTTGGAGAAGATATCCCAGAAGCTCCTGAGAGACT
GATGACAGACACCATTAAATGAACCAATCTTGCTGTGTCGATTTCCTGTGGAGATCAAGTCCTTCTACATGCAGCG
ATGTCCTGAGGATTCCTGCTTACTGAATCTGTGCGACGTGTTGATGCCCAATGTTGGTGAGATTGTGGGAGGCTC
AATGCGTATCTTTGATAGTGAAGAAATACTGGCAGGTTATAAAAGGGAAGGGATTGACCCCACTCCCTATTACTG
GTATACGGATCAGAGAAAATACGGTACATGTCCCCATGGAGGATATGGCTTGGGCTTGAACGATTCTTAACGTG
GATTCTGAATAGGTATCACATCCGAGACGTGTGCTTATACCCTCGATTTGTCCAGCGTTGCACGCCATTAACCAT
TTCTCCAGAAGCGTGGAGGAAAGATTATGAAAGGAACAGGCTCTTTAAAAAAGAAAACAAAAGCCAGAATCTTC
CTTTTTTTTGTTCATTGGGGTTTCTCTTTCTGTTTTTCTTTCTACTACCATAAAAACTATCTCAAATCACCTGA
ACATCAAGTGATATTAAGGTTGTCATCTTAAGAAAAAATATCCATTTTTTCTTAAGTTCGGGAAACAAAGTTCG
GGGAAAATACCTGGCATGAACTGTAGTTAGGGATACATTCAGCATTTTACTCACTTTATCCAAGTTATTCAAT
TTATTCAAGTTATATGTATGTATAATTCAACAATTTTAGATTATGGTGTAAGATACTCCAGTAACCTATCTTTCT
GTCCTTTTAAGTGTACCTGGAATCTTTGATTTATTTTATTGCATCAATGAATTAACAAAAAATCTTGGGGGAA
GAAATTGGCAATATCGTATAAAAATCTGCTCATATTAGAACACAGTATAATTCAGCAGTAACACTAGAAATCAA
TGAATAGCCTTTTGTATCAGTTATTAATCTTTTCTAACTCTGCTTAGCTGCTAATAATCCTGAGGCATAGAAAT
GAAGAATTTGTAAAAATAGAATTGCCTTAAAGGATTTGAAGTAAGAACATAATTTTGGGGAGAGTTTTTTAGTGA
TTCACAGTATCCCTCTTAGCATTAATTTAAGGTAAAGAGGCAGATTGATTTTCCCTCTTTCTGGTAATTCCTAA
GTAATTAAGAATAAATAAGTTCCAAAAGAAATTGTAGCTGGAATCTTAATAACAATTGTGAGTGGCTGTTTGAAGT
TGCCCCACCATGTCCTTAGATCTAATCTGTGCTACCTTATTAATCAGCAGGCTTACTGAATGGCTTCATTT
CAGATTTAGTTGATTTCTCCACCAATGCATGTCATGTATTCTCAATAGGCTGTATTCCCAGCAGTCAATAAATG
AACACCCGTAAAAA

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FIGURE 5073

MVLAELYVSDREGSDATGDGTKEKPFKTLKALMTVGKEPFPTIYVDSQKENERWNVISKSQLKNIKMMWHREQM
KSESREKKEAEDSLRREKNLEEAKKITIKNDPSLPEPKCVKIGALEGYRGQRVKVFGWVHRLRRQGKNLMFLVLR
DGTGYLQCVLADELQCYNGLVLLSTESSVAVYGMLNLTPKGKQAPGGHELSCDFWELIGLAPAGGADNLINEESD
VDVQLNNRHMMIRGENMSKILKARSMVTRCFRDHFFDRGYEYVTPPTLVQTQVEGGATLFLKLDYFGEEAFLTQSS
QLYLETCPLALGDVFCIAQSYRAEQSRTRRHLEAYTHVEAECPFLLTFDDLLNRLEDLVCDVVDRIKSPAGSIVH
ELNPNFQPPKRPFKRMNYSDAIVWLKEHDVKKEDGTFYEFGEDIPAPERLMTDTINEPILLCRFPVEIKSFYMQ
RCPEDSRLTESVDVLMPNVGEIVGGSMRIFDSEEILAGYKREGIDPTPYWYTDQRKYGTCPHGGYGLGLERFLT
WILNRYHIRDVCLYPRFVQRCTP

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FIGURE 5074

CGGCCAGCGACGCGGTTACCTCCTGCTGTCTCGCCCTCGCCCCGGCGAGCTGCCCCCGACGCGAGATGTCTTA
TTTACCAACAAATCCACCAGGGAGCATTCTTATTTGCTGGCTCGGCGTCTCTCTCAGCAGTCACCGGAGTGCCGG
AGGGGGAAGCGCGATTACGGAAGACTATTACCCAGAAGAAAAGATGTTTGTTCACAAGCCAAAGATGTACC
GAAGTATAGAGGGCTACTGTATTGTCAGAGCTAAGTCCTCCAGTTCTCGATTCACTGACAGTAAACGCTATGAAA
AGGACTTCCAGAGCTGTTTGGATTGCATGAGACTCGTTTCAGGAGACATCTGCAATGCCTGTGTCTGCTTGTGAA
AAGATGGAAGAAGTTGCCAGCAGGATCAAAAAAAAAAACTGGAATCATGTGGTAGATGCAAGGGTTGGACCCAGT
CTAAAGACTACATTGAAACCAAAGAAAAGTGAAGTCTATCTGGGAACAGGATAAAAAGCAACCAGATCAGTAAA
CTGCAGAAGGAATTTAAACGTCAATAATTCTGATGCTCACAATACCACCTCAAGTGCCCTCCCCAGCTCCATCTCCT
CGTTACAGTAACCAGTCAGATGACGGCTCAGATACAGAGATGGCTTCTGGTTCTAACAGAACACCAGTTTTTTTCC
TTTTTAGATCTCACATACTGGAAAAGACAGAAGATATGTTGTGGGATCAACTATAAAGGCCGTTTTTGGGGAAGTC
CTCATTGACACACATCCCTTCAAGCCTTGCTGCAGCAATAAGAAAGCAGCTGCCGAGAAAGCCAGAGGAGCAGGGG
CCAGAGCCTCTGCCATCTCCACTCAGGAGTGGTGACTGAGGTTTTTATGTAGAAGGGGAACAAAAAAATCTGA
ATTTTGAAGACCACAAAGCAGCAAACTGACCCCTCTTTTTTTTTTTTTTTTTTTTTTTTTTTTGTAGACGGAGTTT
TGCTCTTGTTACCCAGGCAGGAGTGCAGTGCGTGATCTTGGCTCACTGCAACTTCCGCTCTCCCGGGTTCAAGTG
ATTCTCCTGCCTTAGCCTCCCAAGTAGCTGGGTTTATATGTGCCCGCCACCAGACCCGGCTAATATTTTAGTTTT
AGTAGAGACGGGGTTTACCACATTGGCCAGGCTGGTCTCAAAATGACCCCTCTTATTTTAACTTGGATACCTGCT
ATTCTGCCAAAAGACAATTTCTACAGTAGTTTTGAATGGGTTGATATCCCTTAGTCCCACTCTGAAGCCAG
TGTCAGCTTACTAAAAAAGAGTGGTACATAATATTTAAGATGCTGAGTATTTTCATAGGAAAGATGAATGCTGC
TGTAAGTACTCTTTAAGTCTTTTTTTTTTTTAAATCCCTTCTAATGAATGAACTAGGGGAATTTTCAGGGGACA
GAGATGGGATTGTTGTATGATAAACTGTATGTAGTTTTAGTCTTTCTGTATTGAGATGCAGTGGTTGGGGCAT
TTTTAAGATGGCTGGCTACTTGTTCCTCATGATAATAAATTTGTCATAACTCAGTAACATGAACCTGCCCT
AGAGGTAGTTGTTAATGATTTTGAAATATTAAGGCTTGCCAAGCTTGTGATGATTCAAACCTGTACTACTGATT
ATTAAGCAGGACAGACTGAGCTTCTGTTGCAAATACCTTGAGGAGAAAGTAACTTCTAAATATACAGAGAGGT
AACTTGACTATATAGTTGCATCCTGTGCCCTCCCTTCATATTAATATTTGATAAAGATTTTAAATTTTGTAAAC
TTCTAAAGCAGAATCAAAGCTCCTCTTGGGGAAATGGCAAGTCTTTAGGACAGGCGAGACCCTGTATGAATAGTA
CCAAAGCATTACCGCATGGTAGAGAACACACTCGATTAAAAATGTTAAGCTATCTGAAAAATAAAATGTACAAGT
CCTCAGGATGGCACAAAACAAAGGTTAATGCTTCTTGGGGCACATTTCTTAGAGGGCTTGCTGAGTGTGTAAATA
TAATCGACTTTTGTGTTGTCTGTGACTTCATTGAAAACTTTACAATTCAGTTTCAGCTCTGGATTACTTCAG
TTGACCTTTGTGAAGGTTTTATCTGTGTAGAATGGGTGTTGACTGTTTTAGCCTATTAAGTTTTATTTCT
TTCACCTCTGTATTAAGTAAACTTACTAAAAGAAAAGAGGTTTGTGTTACATTAAATGGTTTTGGTTTGGCT
TCTTTTAGTCAGGCTTTCTGAACATTGAGATATCCTGAACCTAGAGCTCTTCAATCCTAAGATTTTCATGAAAAG
CCTCTCACTTGAACCTAAACCAGAGTACTCTTACTGCCTCTTTCTAAATGTTTCAGGAAAAGCATCGCCAGTTG
GTCCTTTTCAGAAATGAGGGAGAAACATTTGCCCTGCCTTGTAAATAACAAGACTCAGTGCTCATTTTTTAACTGCAT
TTTAAAAAATGGATAGTATAATAACAATAAGGAGTAAGCCACCTTTTATAGGCACCTGTAGTTTTATAGTTCTT
AATCTAAACATTTTATATTTCTTTTGGAAAAACCTACATGCTACAAGCCACCATATGCACAGACTATACA
GCGAGTTGAGTTGGCTTCTCCACAGTCTTTGAGGCGAATTACAAAAGTCCAGCCATTATCATCCTCCTGAGTTA
TTTTGAAATGATTTTTTTGTACATTTTGGCTGCAGTATTGGTGGTAGAATATACTATAATATGGATCATCTCTAC
TTCTGTATTTATTTATTTATTACTAGACCTCAACCACAGTCTTCTTTTTCCCTTCCACCTCTCTTTGCCTGTAG
GATGTACTGTATGTAGTCATGCATTTGTATTAATATATTAGAAATCTACAGATCTGTTTTGTACTTTTTATACT
GTTGGATACTTATAATCAAACTTTTACTAGGGTATTGAATAAATCTAGTCTTATTAGAAAAATAAAAAAAGAA
AGAAA

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FIGURE 5075

GCTGTCCTCGCCCTCGCCCCGGCGAGCTGCCCCGACGCGAGATGTCTTATTTACCAACAAATCCACCAGGGAGC
ATTCTTATTGCTGGCTCGGCGTCTCTCTCAGCAGTCACCGGAGTGCCGGAGGGGGAAGCGCGATTTACGGAAGA
CTATTACCCAGAAGAAAAGATGTTTGTTCACAAGCCAAAGATGTACCGAAGTATAGAGGGCTACTGTATTTG
CAGAGCTAAGTCCTCCAGTTCTCGATTCACTGACAGTAAACGCTATGAAAAGGACTTCCAGAGCTGTTTGGATTG
CATGAGACTCGTTCAGGAGACATCTGCAATGCCTGTGTCTGCTTGTGAAAAGATGGAAGAAGTTGCCAGCAGGA
TCAAAAAAAAAAACTGGAATCATGTGGTAGATGCAAGGGTTGGACCCAGTCTAAAGACTACATTGAAACCAAAGA
AAGTGAAAACCTCTATCTGGGAACAGGATAAAAAGCAACCAGATCAGTAAACTGCAGAAGGAATTTAAACGTCATA
ATTCTGATGCTCACAAATACCACCTCAAGTGCCTCCCCAGCTCCATCTCCTCGTTACAGTAACCAGTCAGATGACG
GCTCAGATACAGAGATGGCTTCTGGTTCTAACAGAACACCAGTTTTTTTCCTTTTTTAGATCTCACATACTGGCCTC
ATTGACACACATCCCTTCAAGCCTTGCTGCAGCAAT

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FIGURE 5076

ACTTCTGCCCTTTTGGCTCTCTGACCAGCACCATGGTGGTGGGCAAGAACAAGCACCTTACGAAAGGCGGCAAAA
AGGGAGCCAAGAAGAAAGTGGTTGATCCATTTTCTAAGAAAGATTGGTTTGACGCGAAAGCACCTACTACGTTCA
ATATAAGAAATATTGGAAGACGCTCATCACCAGGACCCAGGGGAACCAAAATTGCATCTGATGGTCTCAAGGGTC
GTGTGTTTGAAGTGAGTCTTGCTGATTTGCAGAAATGATGAAGTTGCATTTAGAAAATTGAGCTGATTACTGAAGA
TGTTGAGGGCAAAAACCTGCCTAACTTCCATGGCATGGATCTTACCCATGACAAAATGTGTTCCATGGTCAAAAAA
TGGCAGACAATGATTGAAGCTCATGTTGATGTCAAGACTACCGATGGTTACTTGCTTCGTCTTTTCTGTGTTGGT
TTTACTAAAAAACGCAGCAATCAGATACGGAAGACCTCTTATGCTCAGCAACAACAGGTCCGCCAAATCCGGAAG
AAGATGATGGAAATCATGACTCGAGAGGTGCAGACAAATGACGTGAAAGAAGTGGTCAATAAATTGATTCCAGAC
AGCATTGGAAGACATAGAAAAGACTTGCCAATCTATTTATCCTCTCTATGATGTCTTCGTTAGAAAAGTAAAA
ATGTTGAAGAAGCCCAAGTTTGAAGTGGGAAAGCTCATGGAGCTTCATGGTGAAGGCAGTAGTTCTGGAAAAGCT
GCTGGGGACGAGACAGGTGCTAAAGTTGAATGAGCTGATGGATATGAACCACCAGTCCAAGAATCTGTTTAAAGT
TCAGACTTCAAATAGTGGCAAATAAAAAGTGCTATTTGT

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FIGURE 5077

MDLTHDKMCSMVKKWQTMIEAHVDVKT TDGYLLRLFCVGF TKKRSNQIRKTSYAQQQQVRQIRKKMMEIMTREVQ
TNDVKEVVNKLIPDSIGK DIEKTCQSIYPLYDV FVRKV KMLKKPKFELGKLMELHGE GSSSGKAAGDET GAKVE

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FIGURE 5078

ATGAAAGAGGCCATCGGATGCGAGGACATCAGCCCAGTAACTTTGAGGGAAGAAGGTTTTCTTCCCCTGCTGCC
TATGCCGTGGGGTTTGAGCACGTCTCTCGGGGGGAAGTCATGGCCCATAGCCAGCTTGCTGCAATGGAAGCGATG
CTTACAGTAAGGCGAGTTCCCTGGACACGATATATGAGAGTGAGGACACAGTGCCCAGAGTTGGGAGTTGACCGA
ACCTACCTTCAGATGGGATTTCTGCTTGAAAACCAGGAAGCAGAATCAGATGTGAATTACGCTTCTAGACATT
CAACTGCTATCAAAGAATAATTGCCATGCTAAATTATTTATATTTGTGGAGCAAATGACTTTAGGCACTAAGGCT
TTTATCTCTTCCCCTGAGGAACCTTTTGAACCTTTGTTTTCTTGAACCTCTATGCCATCCAGGCAGGGGATTAGAA
GAACCTCCTAATCTGAGTAATTTGAATAAACTGAGGGAAATTGTGGAAAAGAAAGATTACAAGGTGATGAAAAAG
AGAGTAGATAATGAAGAGGGTGTAAAACTTATAAGGTACTGGAAAGGGCAGCCATGAAATTCCTGACCATGGAA
CCCAAACCTGAGAGATGACAGACTTGAAGGATATGGAGAAAAAGATTCAAGTTCTTGGCGGAGAAGGTCATGTTCA
GAAGCAAGTAAGGTAGTGAGAGCGTACTTACAACCTATCGTGTGGAAGCTGCTCAGTGATGAGACTGGGAAAGAT
GAATATGCGTACGCTCTTTCACTCACAGCAAAATCACTAAGCTTCTCTGAGGGTATAGGATACTTTCTTTTCTAT
GGGTCAGTGATGGTCATTACTGGAAGTTCCCATCACTTCCCGGTCCATCTTCCTGTGCTGGAGAACAAACCTAAA
CACGAGGGTTGGGGAAACTTGA

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FIGURE 5079

MKEAIGCEDISPVTLREEGFPSPAAYAVGFEHVSRGEVMAHSQLAAMEAMLTVRRVPWTRYMRVRTQCPELGVDR
TYLQMGFLLLENQEAELRCELRFLDIQLLSKNNCHAKLFI FVEQMTLGTAFISSPEEPFELCFLELYAIQAGGLE
EPPNLSNLNKLREIVEKKDYKVMKKRVDNEEGVKTYKVLERAAMKFLTMEPKLRDORLEGYGEKDSSSWRRRSCS
EASKVVRAYLQLIVWKLLSDETGKDEYAYALSLTAKSLSFSEGIGYFLFYGSVMVITGSSHHFPVHLPVLENKPK
HEGWGN

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FIGURE 5080

ATGGTCTATGGAATTAAAAAATATGGTCCCTTTGTTGCAGACTTTGCTGATAAACTCAATGAGCAAAACCTTGCC
CAACTAGAAGAGGCGAAGCAGGCTTCCATCCAACAAATCCAGAATGCAATTGATATGGAGAAGTCACAACAGGCA
CTGGTTCAGAAGCGCCATTACCTTTTTGATGTGCAAAGGAATAACATTGCTATGGCTTTGGAAGTTACTTACCGG
GAACGACTGTATAGAGTATATAAGGAAGTAAAGAATCGCCTGGACTATCATATATCTGTGCAGAACATGATGTGT
TGA

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FIGURE 5081

MVYGIKKYGPVADFADKLNEQNLAQLEEAQASIQQIQNAIDMEKSQQALVQKRHYLFDVQRNNIAMALEVTYR
ERLYRVYKEVKNRLDYHISVQNMMC

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FIGURE 5082

ACGTGGTACGGAACCGGCGCCGCGCTTGCTGCTGGTAACAGGGCCTTGCCTAGTGGGCTTCCTTCCCAGGTGCGC
CCCTCAGTCTCCACTAGAGACAGGACTGACCAGTTGCTCTTCCCTTCCAAGAACCTTCGAGATCTGCGGTCTGGGG
TCTGGTTGAAAGATGGCGGCCCTCACTACCCTGTTTAAGTACATAGATGAAAATCAGGATCGCTACATTAAGAAA
CTCGCAAAATGGGTGGCTATCCAGAGTGTGTCTGCGTGGCCGGAGAAGAGAGGCGAAATCAGGAGGATGATGGAA
GTTGCTGCTGCAGATGTTAAGCAGTTGGGGGGCTCTGTGGAACGGTGGATATCGGAAAAACAAAGCTCCCTGAT
GGCTCGGAGATCCCCTCCCTCCTATTCTGCTCGGCAGGCTGGGCTCCGACCCACAGAAGAAGACCGTGTGCATT
TACGGGCACCTGGATGTGACAGCCTGCAGCCCTGGAGGACGGCTGGGACAGCGAGCCCTTCACCCTGGTGGAGCGA
GACGGCAAGCTGTATGGGAGAGGTTGACTGATGATAAGGGCCCGGTGGCCGGCTGGATAAACGCCCTGGAAGCG
TATCAGAAAACAGGCCAGGAGATTCTGTCAACGTCCGATTCTGCCTCGAAGGCATGGAGGAGTCAGGCTCTGAG
GGCCTAGACGAGCTGATTTTTGCCCCGAAAGACACATTCTTTAAGGATGTGGACTATGTCTGCATTTCTGACAAT
TACTGGCTGGGAAAGAAGAAGCCCTGCATCACCTACGGCCTCAGGGGCATTGCTACTTTTTTCATCGAGGTGGAG
TGCAGCAACAAAGACCTCCATTCTGGGGTGTACGGGGGCTCGGTGCATGAGGCCATGACTGATCTCATTTTGCTG
ATGGGCTCTTTGGTGGACAAGAGGGGGAACATCCTGATCCCCGGCATTAAACGAGGCCGTGGCCGCCGTACGGAA
GAGGAGCACAAGCTGTACGACGACATCGACTTTGACATAGAGGAGTTTGCCAAGGATGTGGGGGCGCAGATCCTC
CTGCACAGCCACAAGAAAGACATCCTCATGCACCGATGGCGGTACCCGTCTCTGTCCCTCCATGGCATCGAAGGC
GCCTTCTCTGGGTCTGGGGCCAAGACCGTGATTCCCAGGAAGGTGGTTGGCAAGTTCTCCATCAGGCTCGTGCCG
AACATGACTCCTGAAGTCGTGCGCGAGCAGGTACAAAGTACCTAACAAAGAGTTTGTGAACTACGCAGCCCC
AATGAGTTCAAGGTGTACATGGGCCACGGTGGGAAGCCCTGGGTCTCCGACTTCAGTCACCCTCATTACCTGGCT
GGGAGAAGAGCCATGAAGACAGTTTTTGGTGTGAGCCAGACTTGACCAGGGAAGGCGGCAGTATCCCCTGACC
TTGACCTTTCAGGAGGCCACGGGCAAGAACGTATGCTGCTGCCTGTGGGGTCAGCGGATGACGGAGCCCACTCC
CAGAATGAAAAGCTCAACAGGTATAACTACATAGAGGGAACCAAGATGCTGGCCGCGTACCTGTATGAGGTCTCC
CAGCTGAAGGACTAGGCCAAGCCCTCTGTGTGCCATCTCCAATGAGAAGGAATCCTGCCCTCACCTCACCTTTT
CCAACCTGCCCAGGGAAGTGGAGGTCCCTCTTTCCCTTTCCCTCTTGTGAGGTATCCATGACTTTAGAGAACAG
ACACAAGTGTATCCAGCTGTCCACGGGTGGAGCTACCCGTTGGGCTTATGAGTGACCTGGAGTGACAGCTGAGTC
ACCCTGGGTAAGTTCTCAGAGTGGTCAGGATGGCTTGACCTGCAGAAGATACCCAAGGTCCAAAAGCACAAGGT
TGCGGAAAGTTCTGGTTGTGCGCCGGGCACACGGCTCACACCTATAATCGAGCACTTTGGGAGGCCAAGACAGG
AGGATCACTTGAGGCCAGGAGTCTGAGACAAGCCTAGGCAACAAAACAAGACTCTGTCTCTACAAAAAGTTAAG
AAATGAGCCAGACATGGTGGTGTATGCCTGTAGTCCCAGCCACTCAGAAGGCTGAGGCAGGAGGATCGCTTGAGA
CCAAGAGTTTTGAGCCTGCGGTGAGCTGTGAATGCACCACGGCACTCAAGCCTGGGCAATGTAGCAAGATCCTGTC
TCTACAAGAAATTTTTTAAAAATGAGCCAAGTGTGGTGGTGCATGCCTGTAGTTCCAGCTACTCAGGACACTGAC
GTAGGAGGGTTGCTTGAGACTGAGAGTTGGAGGCTGCGATGAGCCATGAATGCCCCACTGCACTCCAGCCTGGGC
GACAGAACGAGACCCCATCTCAAAAAAATAAGTTCTGGTTGTCATTGAATTGGGATAAACAGAGAGCTTGATGC
TTTCTGCCTTCTGTCTCAGGTGATGCATTGCACATTTGGGATATTTGAAAGGAAATGAGGAAAGAAATTAGGGC
CTCCTCTGATCTCTCGCTATCTGCGGGTCTGTCTTTTCTCAAGACCTTCACCATTACTGGCATTTCCTGTCT
TCTCTTTAGTATGATCCCTCAAACCTCACTAACTGGAAGGATGATTTTGTCTCAGTTTGTACTCCTAAATAAAA
AGTAAACATGACACCTCT

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FIGURE 5083A

AATCTGAGAGAGGCCGAGTGGAGTTCGGTCCTTCTCTGAACACTTTTAGCTGAGAGTACCAGCATCCAACCTGGGA
GCGTTGTCAATTGCATTTCCACATTCCCAGGAAAGCCCAGGTGCTGGCTGCCAGCTGCTGCGCCCCCATGTAGAA
GGTGACCTCCTGGGAGCAGGCACGTCTTTTGGCTCTTCTGACCATGGAGAGATAGGACGGTCCCTGCAGCCCCG
GCGACAGAAAGCTGTGCCGCCACCACCGGCCGCGCCCGTCTTCGGATGGATCGCAACAGAGAGGCCGAGATGGA
GCTGAGGCGAGGCCCCAGCCCCACCAGGGCCGCGCGGGCCACGAGGTGGATGGGGACAAGGCTACCTGCCACAC
CTGCTGCATCTGCGGCAAGAGCTTCCCTTCCAGAGCTCGCTTTCGACGACATGCGCAAGCACACGGGCGAGAA
GCCCTACAAGTGTCCCTACTGCGACCACCGGGCTTCCAGAAGGGCAACCTGAAGATTACATCCGGAGCCACCG
CACGGGGACTCTGATTACAGGGACACGAGCCGGAGGCGGGCGAGGCGCCGCTGGGTGAGATGCGCGCCTCCGAGGG
CCTGGACGCTGCGCCAGCCCCACCAAGAGCGCTCGGCCCTGCAACCGGCTGCTGAACGGGGCCTCGCAGGCCGA
CGGCGCCAGGGTCTGAACGGGGCCTCGCAGGCCGACAGCGGCAGAGTCTGCTGCGGAGCAGCAAGAAGGGGGC
AGAGGGGTCCGCATGCGCCCCGGGGGAGGCCAAGGCAGCGGTCCAGTGTCTCTGCAAGAGCCAGTTCGAGCG
TAAGAAGGACCTGGAGCTGCACGTGCACCAGGCGCACAGCCGTTCAAGTGCAGGCTGTGACAGCTACGCGACGCT
GCGGGAGGAGTGCCTGCTGAGCCACATCGAGAGGGACACATCACCGCGCAGGGGCCCCGGCAGCGGCGAGGCCTG
CGTGGAACGGCAAGCCCCGAGCTGAGCCCCGGGGAGTTCCCGTGCAGGTGTGTGGCCAGGCCTTCAGCCAGAC
CTGGTTCTGAAGGCGCACATGAAGAAGCACCGGGGCTCCTTCGACCACGGCTGCCACATCTGCGGCCGTAGGTT
CAAGGAGCCCTGGTTCTCAAGAACCACATGAAGGCGCACGGCCCCAAGACGGGCAGCAAGAACAGGCCCAAGAG
TGAGCTGGACCCCATCGCCACCATCAACAACGTGGTCCAGGAGGAGGTGATCGTCGCCGGCCTGAGCCTCTACGA
GGTCTGCGCCAAGTGCGGGAACCTGTTTACAAACCTGGACAGCTTGAACGCCCCACAATGCCATCCACCGCAGAGT
CGAGGCCAGCCGCACGCGCGCCCCGGCCGAGGAGGGGGCGGAGGGGCCCTCGGACACCAAGCAGTTCTTCTCTCA
GTGCTGAACCTGAGGCCGTGCGCGGCCGGCGACTCGTGCCCTGGCACGCGAGCCGGACGGCGGGTGGCTGAGCT
GGACCCGGTCAACAGCTACCAGGCTGGCAGCTGGCCACGCGGGTAAGGTGGCCGAGCCGGCCGAGTACCTCAA
GTACGGGGCCTGGGACGAGGCGCTGGCCGGGGACGTGGCCTTCGACAAGGACAGGCGCGAGTACGTCTGTTGAG
CCAGGAGAAGCGCAAGCGTGAGCAGGATGCACCAGCCGCGCAGGGGCCCCCGCGGAAGCGCGCGAGCGGGCCTGG
GGACCCGCGCGCCGCGGCCACCTCGATCCCCGCTCGGCCGCGCGCCCCAACCGCAGGGCCGCGAGCCACCACCGG
CCAGGGCAAGTCTCCGAGTGCTTCGAGTGCGGCAAGATCTTCCGCACCTATCATCAGATGGTGTGCACTACG
CTGCTATCGCCGCGCGCGCGAGAGGGACAGTGACGGGGACAGGGCGGCGGGGCCCGCTGCGGATCACTCAG
TGAGGGTGACTCGGCTCCCAGCCAGCAGTGGTGGAGGGGCGCCCTGTAACCTGCACCAGGGGACAGCCGCGCCTG
GGCCGACGAGGCTGCCGAAGACAGTGGTGAGGAGGGCGCCCTGAACCTGCACCAGGGGACAGCCGCGCCTG
CTGCTTTTCCGAAGAGGTGACTTCGACCAGCTCTCCAGTGGAGACCAGAGTCACAAGATGGGAGATAACGCCCTC
GGAAAGAGACACCGCGAGTCCAAGGCAGGGATCGCAGCTTCTGTGTCCATACTTGAAGACAGTAGCAGAGAGAC
TTCTAGAAGGCAAGAGCAGCACAGATTTCTATGGACTTAAAGATGCCAGCATTTACCCCCAAGCAGGAGGTGCC
CGTCCCTGGTGTGTTGGAGTTCCCTTCCAGTACGGGAGCGGAGGGCCAGACGGGTACCCCTGCAGAAAAGC
TGTCGATTGTGACAACAAGGAACACTCTGGGGGAGGGAAGCGGGCGCTGGCCCCAGACCTCATGCCGCTAGATT
TAAGTGCAGGTCGACGCGGGATGACCCAGCAATAAGGAGACGGCCTCCTCCCTGCAGGCGGCTTTAGTCGTTT
ACCCGTGTCTTACTGCAGCCACAAGACCTACTACCCGAGGTCTGTGGATGCACAAACGCATCTGGCACCGCG
TCAGCTGCAACTCCGTGGCTCCCCGTGGATTACGCCCAATGGTTACAAAAGCATCAGAAGCAATTTXGGTTTTT
CTTTCCCGAGCGGACGACGCGGGCCCCCGCCTGCCCTCGGTGGCAAAGATGCCAGCCTTTGCTCCTTGCTCXG
GTTACCCGCACTCAGGTGCCAGGGGGGATGCCGGGGTCCAAAAGTGGCTCTTCTCCCTGGGAGTGGTCACAAA
AGCCGCTAGCATGCCTAAGAATAAGGAGAGCCATTCCGGAGGTCCCTGCGCTCTGTGGGCGCCCGGCCCTGACGG
GTATCGACAGACCAACCTTGTACGGCCAGGAGCCACATGGCGCGGCCACACAGGGGCCCCCTGGCCAAGCCCAG
GCAGGAGGCTAGCTCCAAACCGGTGCTGCCCCGGXGTGGCGGGGGCTTACGAGGAGCGCCACCCCTACGCCCA
CCGTATCGCCCCGGGCTGGCGCGCAGCCCTCGGCCAATAGCAAGCCTGTGGAGAAGTTTGGGGTCCCCCAGCGG
GGGCTGGCTTTGCCCCACAAATAAGCACAGTGCCCCGGACTCCCTGAAAGCCAAATTCAGTGCTCAGCCTCAGG
GTCCACCTCCTGCAAGGGGCGAAGGGGGCGCTCCTCTTACCTCCCCGCGAGCCCCCTCGAAGGCAGCCAGG
AGCTGAGGACTCTGGCCACCTGTGCTGCGGGGTCCAGGGGCGACGCGCCTTGAGGCCCCAGCCGGCGTGGCTG
GGGCGCCCCCGCTCTACTCCATCAACAGGXAGCCGGTGGCCGAGGGGCATGAGAAGCGCCTGGACATCCT
CAACAXTCTTTAAGACGTACATTXCAAAGGACTTTGCGACCTCTACCAGGGATGGGGTGTGAGCGGCCCTGGG
TTGGAGCACAGAGGGACACTCCGGACGCGAGGCCCGGCCAGGAGAGTTCGTCTGCATCGAGTGGGAAAGAGCTTC

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FIGURE 5083B

CACCAGCCCGGCCACCTCAGGGCCACATGCGGGCACACTCAGTGGTGTGTTGAGTCCGATGGGCCTCGGGGTCT
GAAGTTCATACCACCTCCGCAGACGCCCCCAAACAAGGGAGAGACCATTCTAACACAGGTACCGTCCAGACAGTG
CCTCTGAGAAAGGGAACCTAAAGGCGTGTTCGACGCACCCAGGTCCCCGTAACGGCCATTAGCAGTACCCCTC
ACGATGTCCCAGCAGCCTCCACCTGTGACCTGGCCGCTCCATGGAAGAACAGCCGGGGAACCTCCTGAGCAGACA
CCTCACATCCCGAGCCGCTGCGCTGGAGTGGAACCTGAAGGCAGATGCCCTCTCCTTGTTAAACGTTTCAGAAATAA
ATGAAGATGCTATATTCTAGAAATACATGTAGATACTATATACGCATTTACGTGCTCATCGTCCATAGTCCCAT
TTTTCTTATAATAAACAGTAGTACTGGCAGGCACAGTAGGGGCACAAGGCATCTGTCTTATTCAAGACAAGTTTG
AGACACTGGAAAAAAGATACTTGTGTGTGTGTGTGGACAGAGTGGCGAGGCTGAGCACTGTACAGGGGCTCC
CATGTTAAGAGGGGACTGTGGGGATGATGTCAGAACAAGACGTGGTGGATTGAGGTTGATCGAGTATTAATACTA
CTGCCTCTCCTTGTCTTAGTGGGTATTTAAATAGTAAATAAGAGAGAGGAAGGAGGTGACGTTTCAGGTGCTGTG
GGAAGCAGGCTTGGCGGAGGGGTATGATGATGAGACCCTCATTGTTCACTGGCTCCATCGCACTCCTCCCTGGGG
CCGTGTGCCTGTTCCATTCTTCCCACCATTCGAACCTGAGCGAATCTGGCAAAGGAGACACGTCTGTGGGAATGCG
TAGATTCCGCCTCGGAAGAGAGCTAGCGCAACACTAAGAAAAGCAGGCTTCTTGTATTCTCAGGACCTTTTTG
TAACAGGGCTACATTCTGCAAACCTGCTTACAAAGGAAGACTATACGTCTTAACAAATTATTTAGCCACTGAGTCC
TCCCATTTCGACCTGTTTTAGTAATGGCAGAAGAATCCCTGAGCAGGTTTCAGGTGCCCTAGATGACTAGGGTGC
TGAGCTCTGGCGCCTTCTGTCCCCACTCTTGGCTCCCCGCCCTTCCCTGAGCCACCCAGCAAGTGGGTGTCT
TTTCTCCCTGGGCCTGGTGACCTCCACAGGATGAGTGACTTTGTTTATAAAGGTGGGGATCACCAGCCCCCTGG
GTGGGGGACGGCTTCATATACCTCTTCTCAGTAATGCAAATGCGAGTTTTTGTGGTGGGGGTAAAGGCCATAA
CAAAGGATCTTAAACCATGCAGTGTACGCAATTGAAATGGTATTCACAGATATAAATATTTCTTTTCCCATTG
CCGTGACACTATGTGTGATGGTAATATTTCTGAGAGTTTCAGATTTTTGCACATATGATTTTATGCATTATCAAA
AGTTACTGCTGCCTTGAATGAAAATGTTCTGTGAAATTTTTTGCAAAGCTTTACTAGGTTTTTTTTTAATTGTG
AAATTTTGTAAGGCAGGAAATGGATTAAAACGAGCATGCTAAATATATTTTTCAAAAAGCAATAATTTTACAT
GTACAGAAATTATCCTAACCTTTAATACTGGCGAGAGCAACAGTTTACTTAATACGGTAATGGACTAGTGCAGTT
TTTGTAGACAGTGGGCTTCTGATACAAAGTCTTGTTTAAACACAGACACACACACACACAAACACACACACAC
CCTAAAGTGTGGGTTTTCTGTTCTAATGATTTGTTGAATATTATTATATTATTATTATTATTATTATTATTG
TTATTGTTATTAGTAATGTTTGGTCTGGATTCTACTTGTTACTGAGTTTAAATTACTTGACGGTTTCAGGTACT
TTGCAACACTTTCAAACGATGCAATGTAACCTGGCTAGCTTATATATATATATATATATATATATATATATTTT
TTTTTTTTTTTACTTATTTTTTTCTGATATTCTTACACCAGATATGTACGAAAATGATCTGTCTGTGGTGTA
TTAGGAATGTCCATGCAGATACAGTTAAACAACCTGTAATTGACTGTTCTGTAAAGTTATTTGGGCAAAGTTGCG
GAGACACATTCTCTGTCCACCTAAGAAATCAGAAGACTCTTCTGTTGATTATGTTTAAATCATTTAGTAGTTT
CCCCACAGTGATCATTTCTGCATTTTCTGGCTTTTGTCTTGGCTGAAAGTGAATGGTGACTGTTAGGAATGT
CAGGGACTAGTGACCCAGTCCTGTTTCTGTGTTTTAGTTATTAAGAAATCTGTACCCAAAGTG

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FIGURE 5084A

AGACCATCCAAGAAGACAGTGCAGCCACCTCCGAGAGCCTGGATGTGATGGCGTCACAGAAGAGACCCTCCCAGA
GGCACGGATCCAAGTACCTGGCCACAGCAAGTACCATGGACCATGCCAGGCATGGCTTCCTCCCAAGGCACAGAG
ACACGGGCATCCTTGACTCCATCGGGCGCTTCTTTGGCGGTGACAGGGGTGCGCCCAAGCGGGGCTCTGGCAAGG
TGAGCTCTGAGGAGTAGAGGAGTTTTAGTTTAAATGGAAAAAGCAAAGGAGAAATCAGTAGGTGAACTCAGCCAT
TAGAGGAAGAAGTGGCACGTAGCCTCTTGCTGTCTAAGGTCTCGTTCCGTGCTGGAGAATGCATATGAGCCCAAG
AGTGTGGGCTGAGTGGCTGCTTAGGACGTTTTCTTTAACTCACCCCTCTTTTCTCACAAGGGATGGTGGCC
GGGGTGTGGCTCAGGAATGTAAGGACATGCTGAATTCGGATCTCTAAGGGTGCTGGACATGGGCGTTGCAGAA
AGAGAGCCACATTCTCAGGGTCTCTGGTGGTGTGTGCTTGGGACTTGATGACTGATGTTGCCCTCTGCAGCCCAC
ACGCTGGGGTTCAACACTGGGTTATGCTCGTTTTTCTTGAGTCACTGCTGCTAGCTTCATGTTGCTCTGCGAC
AATCATAGGATTGAGGTGAGGAAGACTTTTGAACAACTCCTCAATTTAAATCCGCCTTGAGCAAACGTTCTCT
GTGGTCTGAGAAGTGAAGGGGGGAGGGATAAATGAGTGTCTATGAATCAAAGCTTTATTATCTTGTGATTCCAT
TAATTTGCATACAGAGTCTTAGAAGTTTTCTTTATTCAAAGCAAATGTGGATAAAAAATGATTACAAAAA
AACTCTGCTATGGGGTCCAGAGTCTAGGAGTGGTTTTCTGCAGTTGATTGTCAGTGGAGAACCTGTGGCTGCTGGT
TCATCAAAGCGCTGGTCCCTGAGTGCCATTGAGATTGCAGATGCAGTATTTACGTGATGTTTAGAGTGTGGT
GGTTGTGTAATTTTGGAGAGAAAGAAGTTTTTCCCAAAAAGTCCCTAGTTTATTGGGTGTTCTCACACAACCTG
TAAGATGAAGCTGTTTTTCTGCCTGTGTGCAGGGCTGATTCTGGAATTCAGAAGGCCTTGTTGGGAGCGTAAAG
GCTTTTGAATAAAGTGTGGAACAGAGCGCCTCATTCTGATAACATGCAATCATAAAAACCATAGGGCAACTTGGA
GTTAAGGAGTTTCTAGAATTTGCTTTAGTCTCCAACATGCAATCTTTATTGATCATGAAATGTTGAAGAGAAAC
ACAAATGTCAGTTTTACCTTTCTGTGGGCGTGAAAGCACATCGAAGTTTCAGGCAACTGTTAACATCTCTACCA
TCTGTCTGAGTTGAGATTTAGGTTGTGACACTTGCCGTGACTTATTGTAAATGACATTTGTGTGCTTAGAT
ACTAATGGAATTCATATTCTGGCTAGTTCTTTCAGTGCATTTGTAGACATGTTCTTTTCTTTGTAGCAGTCTC
CCTCACCTGAAATGTTGGTGTCTAACCAGTTTCTAATGCTAATTTCACTGGAAGCACTTTTCAAGCCAGC
TATCAAACCACACCAGACATGTATGGATTGGGTGCCCCAATAAAGCGTTGCTATTATGTAAGCATCCCTCACGC
ATACAGCATCACCAGTTTTGAAAGCTTGAACATTTCTGCTTACTTCAAGGTACAGAAAAAATGTACTTAA
CTGTGCAGAAAAGATGAAATCACTGGATAATATGTATTATAAAATAAGCTTCATGTGAGTGACACTGGTTTAA
TGAAATAAAATGGTGAAGCATTGATATCAATCATTGTGACTTTATCTCAAAACAATATTGACACACATAGATGT
TTTTCTTCTTTATGGTAAGATTACAGCCTTTATTGTCTTAAATCTCTTATACTCTTCAATTTTTCAAAGAAA
CATTCTAGTCTCAGAAATAGTCCATCTCTTTGCAAAACAGGGCTGGCCAATTATCAAGGACCCATAAAAAATCAA
ACACTTTCAAAAATTTTAAAAATAAAATAATTTTACATGATTGCTTTAGGAATTTGAAGTATCCATTCTTT
CACTATGGAGTGTGAAATATAGAAGATTTTTTAATGAACAGGGCTGCCCTTTGATGCCAAAGGCATAAATAATA
ATAATAACATTTGCACGTGTGATCACAGAGCAGTGTGAGGCATCCCGGGGGAGCGCACGCAGTGGGGATGTGAT
TGCTCCACTCAACTATTTTATCACAAGTGTGTAACATGGGAGATGAAAGCTTAACTCTCTCTACACCCAGCT
ACAGACCGCAATGGCCCTAAAAATCTGGGGTATTCTATTGGGTGGGCTGCCATGGAGGAATTTTTGGTTTTGTTT
TTATTTTTATTTGTTGTTCTGTTTACAAATCAGGAGAGCCCTGTTTTTATATGCTAGGAAGGTCCTTGGGATAG
GCCGAAGAGGTGTGCAACGAGCAGTGAAGGCCCGGGCCCTGTCTCTCAGGACCACGGCGGCCCTGCCCCACACA
CAGTTCTGCTTCTCCCTATCTAGAACGAGGTTTTCTGGCAGATTCTGCCAGACTCTGAGTGGAGCCCCCAT
GACCCTATAAAAGGGGCTGTTTGTCTCTCTCCACCTCTCTGTGCTCTTCTCTCCCTCCCTTGAGGGCACATGGC
CGCTGGTACCACATGTTGGAGCGGCCCGCCCCGAGCCCGGGAATGCCCTAACAAACCCCATGCTTGTGTTGCTGG
GAGCTGACATTCAAGAAAAGTGCAATTAATAATTCCTTGAGAAGGCATATTCTTTTGAGAGCCGTAATGAAAAGT
GCATTACGGAGAACATGCTCCTTTGTTGTGAGAGGAAAGAAAGGACTGTTGTTGCCTTTAAGGAACAGGTTTCC
CAGTTCCCCGGAATGTCAGGGTCACATGAGGAATGGGTGAGCACTTAGGGCCAAGATTGTCGTGTGCTTGGCCCG
GCAGCTTCTCTAAGTGACCTCTCCAGCATCACTCTGTGCCAGTGCTCATATCTGAGGCCACTTGAGTGTACAG
AGGCAGAGCCTGGAACATTAGCTTTGGAACCGTTCCTTCTTTTATGTGGAGGAAGTAAGGTTTACAAGAC
ACCTAAGCTGGACATGGTGTGTGCCACTTGATAGTTCCCAAAGCAGAAAGCAGCCAGGACATCCAGTACCCC
ACTTCTCCGTGCCGTGTACTTTTAGGGAGGTTTTCGAAAGCTAGCTTCTTACCGATGATTTTGTCTATTTTCTG
TTTTATGTGAAAACCTTCATTTATAACCTGCTCTTCTCAGTGTCTTCTATTTCAGCATTAGTATGACTTCTATG
CCTCTAATTGCGACTGTATGGAGAAGAACTGTTTGTCAATTCAGTGCCGTGGGATATAATCAGTCCTGTAAATTCA
TCAGAAATGTTCTGTTGCCGTGATTTTTTTTCCATTGCATTTTAATTTCAATTAACATATTTTAGTTCTACAGTAAC

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FIGURE 5084B

CTAATTCCTCATTGTTACCATGAGATCCTAATTCTGTAGCTGTGTTCTGTAATCCCATGGGGCATGTACCATTG
GAGACACATGAAGGATACAGTAGACAGCACGGAAGGCAGCAGCAACACACAGGGGTGTCCTCCCTCCCCAGAGCC
CAGTGTGCACACAGAACCAAATTCAATCTCATTTCATCGTGAGCTTGTCATGGTAACTGATCCAGCCACTCAGTACC
TCCATTGGATAAGAGATTGGCCACAGATTCTTCTAGAGAAAATCCAAATGTGGAGGGTGCATTTGTTTCTGCAC
CCAAACAAATACCTTTTGAGATTCTTATAGGCATTCTCTCGAAGTCTCATTACTCTGATCAGTTATTGATCGG
AGGCTACCCTGGCTCAGTCACCAGCTGCTCACTGTGCTCTCTGTGGTCTCAGGAGCTGCAGTTGTTGCTGTTGT
ATGAATAGACGATAGTTAATTAGACTGGATGTGTCTGTACTGGCAGTGATTTTGCAACTTCCTCTGTATAAGCGA
TACATTTGTAAATCATGGGAATGTATTTGATGGTAATTGCCTGTGGTGGTTGTATCATGATTTAATTTTATTATG
AGCTTTTGGCTTTATATATTTTTCTGCCTTTTTATGCATTCAATTAACAGTTTAACAGAC

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FIGURE 5085

MGNHAGKRELNAEKASTNSETNRGESEKKRNLGELSRTTSEDNEVFGEADANQNNGTSSQDTAVTDSKRTADPKN
AWQDAHPADPGSRPHLIRLFSRDAPGEGGQHLQRQAL

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FIGURE 5086

CCTGGATGTGATGGCGTCACAGAAGAGACCCCTCCCAGAGGCACGGATCCAAGTACCTGGCCACAGCAAGTACCAT
GGACCATGCCAGGCATGGCTTCCTCCCAAGGCACAGAGACACGGGATCCTTGACTCCATCGGGCGCTTCCTTGG
CGGTGACAGGGGTGCGCCCAAGCGGGGCTCTGGCAAGGTACCCCTGGCTAAAGCCGGGCGGAGCCCTCTGCCCTC
TCATGCCCCGACCCAGCCAGCCTGGGCTGTGCAACATGTACAAGGACTCACACCACCCGGCAAGAACTGCTCACTACGG
CTCCCTGCCCCAGAAGTCACACGGCCGGACCCAAGATGAAAACCCCGTAGTCCACTTCTTCAAGAACATTGTGAC
GCCTCGCACACCACCCCGTCGCAGGGAAAGGGGGCCGAAGGCCAGAGACCAGGATTTGGCTACGGAGGCAGAGC
GTCCGACTATAAATCGGCTCACAAGGGATTCAAGGGAGTCGATGCCAGGGCACGCTTTCCAAAATTTTTAAGCT
GGGAGGAAGAGATAGTCGCTCTGGATCACCCATGGCTAGACGCTGAAAACCCACCTGGTTCCGGAATCCTGTCTCT
CAGCTTCTTAATATAACTGCCTTAAAACCTTTAATCCCACTTGCCCTGTTACCTAATTAGAGCAGATGACCCCTC
CCCTAATGCCTGCGGAGTTGTGCACGTAGTAGGGTCAGGCCACGGCAGCCTACCGGCAATTTCCGGCCAACAGTT
AAATGAGAACATGAAAACAGAAAACGGTTAAAACGTGCCCTTTCTGTGTGAAGATCACGTTCTTCCCCCGCAAT
GTGCCCCCAGACGCACGTGGGTCTTCAGGGGGCCAGGTGCACAGACGTCCCTCCACGTTACCCCTCCACCCTTG
GACTTTCTTTTCGCCGTGGCTGCGGCACCCTTGCGCTTTTGCTGGTCACTGCCATGGAGGCACACAGCTGCAGAG
ACAGAGAGGACGTGGGCGGCAGAGAGGACTGTTGACATCCAAGCTTCCTTTGTTTTTTTTTCTGTCTCTCTC
ACCTCTAAAGTAGACTTCATTTTTCTTAACAGGATTAGACAGTCAAGGAGTGGCTTACTACATGTGGGAGCTTT
TGGTATGTGACATGCGGGCTGGGCAGCTGTTAGAGTCCAACGTGGGGCAGCACAGAGAGGGGGCCACCTCCCCAG
GCGTGGCTGCCCACACACCCCAATTAGCTG

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FIGURE 5087

MASQKRPSQRHGSKYLATASTMDHARHGFLPRHRDTGILDSIGRFFGGDRGAPKRGSGKVPWLKPGRSPLPSHAR
SQPGLCNMYKDSHHPARTAHYGSLPQKSHGRTQDENPVVHFFKNIVTPRTPPPSQGKGAEGQRPFGYGGGRADY
KSAHKGFKGVDQAQGTLSKIFKLGGRDSRSGSPMARR

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FIGURE 5088

GGCGCCTGAGCGGACTGACGCCGAGACGCGCGCGGGTCAGCGGCGCGGGGACGCGGGGCGCTGGGCGCGGGGCTG
GGGGCGCAGGCCCGGAGGCCGAGGAGCGCGCGGAGCGCGGATGAGCAGGCGGCGCGGTGGCCCCGCGGGGCGCGGA
GCCCCGTGACAGCCTCGGCCAGGCGGGCGCTGCGATGGAGGCCGAGGGCCTGGACTGGCTCCTGGTGCCACTGCAC
CAGCTGGTGTCTGGGGCGCGGCCGCGGCCATGGTCTTCGAGGGGTGGTGCCCTACGTCCCGCAGTATCGGGAC
ATTGCGAGGACGCAAGCGCCGACGGCTTCTCCACCTACGTGTGCTGGTGCTGGTGGCCAACATTTTGC GG
ATACTCTTCTGGTTTGGGAAGGCGCTTTGAGTCCCCGCTGCTGTGGCAGAGCGCCATCATGATCCTGACCATGCTG
CTGATGCTGAAGCTGTGCACCGAGGTCCGTGTGGCCAACGAGCTCAACGCCAGGCGCCGCTCCTTTACAGCTGCA
GATAGCAAGGATGAAGAAGTCAAGGTTGCCCCAGGCGGTCTTCTGGACTTCGACCCCCACCACTTCTGGCAG
TGGAGCAGCTTCTCGGACTACGTGCAGTGCGTCTTGGCCTTCACGGGCGTGGCGGGCTACATCACCTACCTGTCC
ATTGACTCCGCCCTGTTTGTGGAGACCTGGGCTTCTGGCTGTGCTGACCGAAGCCATGCTGGGTGTGCCCCAG
CTTTACCGCAACCACCGCCACCAGTCCACGGAGGGCATGAGCATCAAGATGGTGCTCATGTGGACCAAGTGGTGAC
GCCTTCAAGACGGCCTACTTCTGTGAAGGTGCCCCCTGTCAGTTCTCCGTGTGCGGCCCTGCTGCAGGTGCTG
GTGGACCTGGCCATCCTGGGGCAGGCCTACGCCCTTCGCCCGCCACCCCCAGAACCGGCGCCCCACGCCGTGCAC
CCCCTGGCACCAAGGCCCTCTGACAGTGGGGAGGACGAGGATGTGGGACCGCCAGCCGCGGGCACTGGTGGGCC
CTGACCTCCCCGCGGGGAGGGTGGGTGCTGTGGCCCCGTCAGGTGTGGCAGAGATGGGGCATGGGCATTGGGGTC
TCCATCAGCCTCTGTGGGGTGTCTCAGGGTGGGCAGTGGGGGTGGGGCTGGGACGCTGTTTGTGCTCAGCGGGGA
CAGCCAGGGTTGATCTGGCCCCGAGGGTTTTGGATGTTTTTAGGATGACATAAAAAGCAAGTGTTTTCCCCATTT
CCTCTTATGAAACACCGTCTGAGCCCAAGGTACACATTGGGCGGCCCTGCAGGAACCTGCTCCAGGTGGACACACG
GGCCAGCAGCCGCGAACCTTGAAGCTGGGGTGACCGCAGGAGACCTGTAAGGCCTGTGAGCGGAGCCCTCGACC
CCGTGACACCTTGGCCAGACACCTGCTTGGACTGGGGTGGCCTCTGCTACCCAGGGGTCTGGCACGGGGGAGGG
CTGGGGCTTTCTCTGCCTGGTACACACGGAAGGCGGCTGTGCGGACGCGAGGGTCACCGTGCTCCGGGTTTTCTG
ACAGTCGGTGTTCCTGGGCCTTTGGAGTGGCTGCGAGGCCCTGAACGCCCTTGTGGATCCGCTGTGTCCAGCCCCG
CTGAGCATCGCCAGGGCTAGCTCATGCTGCTCTTGTGAGCCTCTGGTCTCCTCGAGTCTTGGGGACGTGGCAG
ATGCCAGCGACCATCAGACAACGTGGAGGCCCTCATGGGCAATGGCTGAGGGGGCCGGGCTGAGGCTGTGCACAT
GCAGTCTGCACGCCACTCTTGGGCTCTGCTGGCGGAGATCCCCCTTCTTCTGGGTGCAGACTGCACCTCCGGATG
CAGTTTTGATGTCCATCTTCCAGGAGAGACGGTCTCGGGTCCAGGGAGTGGAGGGGGCTGCCCCTGCCGTGCAGG
TCCTGGCCGATGGCGCCTTACCCTGCTGCCCCTGGGCTTTTGGCCTGAAGCAAATTCCTGAGTGGGGGGTACTGGG
GCCTGCCGATCCTGTCTGTCCACTGCCACCCCCGTGTGCTGGCTCCCTCACTTCTGGCTGCAGTGGGAGCCG
CCAGTCTGACCCTTGTACCGCACGCTCTGCCCCACCCCGTTGCAAGAGGTCACACCATGTCAGCAGCCTTGCA
CTGACCGCAGCCGGCCCCCAGGCCTCAGAGTTCTGGATGCTTCCGTGCGGCTCCAACAGGCATCGTCTTCCCTTC
CGCAGGTGGAGGGGGCGCTTCCCGCAGGCATCTGAGTCTGTGCCGGGGCCGTGGCCATGGGAAGATGTTCCACG
CTGCCCTCCTCCTCGAGTTTTCTCGGAAACACTTTGAATGTCTGAGTGAGGGTCTGCTTAGCTCTTTGGCCTG
TGAGATGCTTTGAAAATTTTTATTTTTTTAAGATGAAGCAAGATGTCTGTAGCGGTAATTGCCCTACATTAAACT
GTCGCCGACTGCAGGCGCAGTGACTGCTGAATGTACCCTGTGTGGCGACTTGGAATCAATAAACCATTTGTGGAT
CCTG

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FIGURE 5089A

CTGGGTTGTGTCGCCGCGGTAGGCGCTGCGCTCTGAGCGCAGCGCAGGCCCCGTACCGACCGCCCCGCCGCCCTC
TGTCGCCGATGGAGGTGCCGGCCGCGGGTTCGCTTCTGCGGAGGGCGCCCCGACGGCGGCTGTGGCCGAGGTGC
GCTGCCCCGGGGCCCCGCGCCGCTGCGCCTGCTGGAGTGGAGGGTGGCGGGCGGGCGCGGCCCTGCGCATCGGCTCGG
TGCTGGCCGTGTTTCAGGGCCGCCGCTCCGCGCAGTCTCCGGGGCTCTCAGTCCCCTGTAGCCTCCGGGGGCT
GCGTGCGCCCCGCGCGGGCCGGAACGCAGGCTGAGGTGCGAGCGCGCGGGCGTGGTGGGGAGCTGTGCGCGCAGC
CGGGCCAGGTGGTGCGCCCCAGGAGCGGTTCTGGTGAGGTTGGAAGGATGCAGCCACCCGGTTGTTCATGAAAGGCC
TGTTGTCTGAATGTGGCCAAGACCTCACCCAGTTGCAGAGTAAGAACGGGAAGCAGCAGGTGCCGCTGTCCACGG
CGACCGTGTCCATGGTGCACAGCGTGCCGGAGTTGATGGTGAGCTCCGAGCAAGCTGAACAGCTGGGAAGAGAAG
ACCAGCAGCGACTGCACCGAAACCGGAAGCTGGTGCTCATGGTGGAAGTTGGACAGACGTTGATTACACAACCG
AGCAGCACTGTTCAGCAGATGTCTGAATAAAGGCATCTTTCACTTCCAGCTGGGCCGGGGTGGAGCCATGCTGCACA
CGCGCCTGCGTCCCACTGCAAGGACTTCTGGAGAAGATCGCCAAGCTGTACGAGCTGCACGTTCTTCACTTCG
GCAGCCGGCTGTACGCACACACCATCGCAGGCTTTTAGACCCCGAGAAGAAGCTTTTTTCTCACCGAATATTAT
CAAGGGATGAATGTATTGACCCATTTTCTAAACCGGGAACCTTAGAAATCTCTTTCTTGTGGAGACTCAATGG
TTTGCAATTATTGATGATCGAGAAGATGTCTGGAAGTTTGCCCCAATCTGATAACTGTGAAGAAATATGTATACT
TCCAGGGCAGGGTGATATGAATGCGCCCCCTGGGTCCCAGAAATCTCAGACGAGAAAGAAAGTAAATCATTCTC
GAGGCACTGAGGTCTCAGAGCCATCTCCGCCCCGTGAGAGACCTGAGGGGGTAACGCAGGCCCCCTGGAGTGGAGC
CCAGCAATGGCCTGGAGAAGCCTGCACGGGAGCTGAACGGCAGCGAGGCGCCACCCCGCGGGACTCACCCGCC
CCGGGAAGCCAGACGAGAGGGACATCTGGCCCCCTGCCAGGCCCCCACCAGCAGCCAAGAGCTGGCAGGCGCTC
CTGAGCCCCAGGGATCTGTGCGCAGGGTGGCCGGGTGGCACCGGGACAGCGGCCCTGCCAGGGTGGCACGGGCA
CTGACCTGGACTTTGACTTATCCAGCGACAGCGAGAGCAGCAGTGAAGTCCGAGGGCAGCAAGTCTCTCTCTCCG
CCTCTGATGGCGAAAGCGAGGGGAAAAGAGGCGGCGAGAAGCCGAAGGCTGCCCCAGAGGGAGCCGGGGCGCTGG
CACAGGGCAATTCCCTGGAGCCGGGGCGGCTGCAGCACCAGTCTCCCCGAGAGGGCCAGCCTGGCGCGCATG
CCCCGACAAGGAGCCTGAGCTGGGTGGGCGAGGAGGGCGAGCGGGATGGCCTCTGCGGCTGGGCAACGGCT
GTGCCGACAGGAAGGAGGCGGAGACCAGTACAGAACAGCGAGCTGTCGGGGTCACTGCGGGTGAGTCCCTGG
ACCAGAGCATGGAGGAGGAGGAGGAGGAGGACACGGATGAGGATGACCACCTCATCTACCTGGAGGAGATCCTGG
TCCGTGTACACACTGACTACTATGCCAAGTATGACCGCTACCTCAACAAGGAGATCGAGGAGCGCCGGACATCC
GCAAGATCGTGCCGGAGCTCAAGAGCAAGGTGCTGGCAGACGCTGGCCATAATTTTCAGTGGGCTACACCCGACAA
ACTTCCCGATAGAGAAGACGCGGGAGCAATACACGCCACGGCGCTGGGAGCGAAGATCCTCACTCGGCTGGTGC
TGAGCCCCGAGCCCCCTGACAGGGCCACGCACCTGATCGCCGCGCGAGCTGGCACAGAGAAGGTGCTGCAGGCAC
AGGAGTGGCGGACACCTGCACGTGGTCAACCCTGACTGGCTGTGGAGCTGCCTGGAGCGCTGGGACAAGGTGGAGG
AGCAGCTCTTCCCGTTCAGGGACGATCACACCAAGGCACAGAGGGAGAACAGCCCTGCGGCCCTTTCCCGACCGGG
AGGGTGTGCCCCCACCAGCTTGTTCACCCGATGCCGGTCTTCCCAAGGCCAGCCTGGCCCCGAGGTTCCGA
TCTACGACTCCAACACGGGGAAGCTCATCAGGACGGGCGCCCGGGGGCCCCAGCACCTCCAGCTCCCTACCCA
TCCGCCAGGAGCCCTCTTCTTCAGAGCGGTTCCGCCACCCAGCCGCAGATGTTTGGTGAAGAGCTGCCTGACG
CTCAGGACGGAGAGCAGCCTGGCCCTTCTAGAAGAAAGCGACAGCCAGTATGTCTGAGACAATGCCGCTGTACA
CTCTTTGTAAGGAGGATTTAGAGAGTATGGACAAAAGAGGTGGACGACATCCTTGGAGAAGGCAGCGACGACGCG
ACAGCGAGAAGAGGAGGCTGAGGAGCAGGAGGAGGAGCCCCAGCCCCGGAAGCCAGGGACCCGAGGGAGCGGA
CGCTCGGGGCACCTGCGTCCAGCGAGAGGAGCGCGGCAGGGGGCCGGGGGCCAGAGGCCACAAGAGGAAGCTGA
ATGAAGAGGACGCCGCCAGCGAGTCCAGCAGGGAGTCCAGCAACGAGGATGAGGGCAGCAGCTCCGAGGCCGACG
AGATGGCCAAGGCGCTGGAGGCGGAGCTCAACGACCTCATGTGAGCGGGCAGCGGGCAGGGACTGAAGCCTGA
CCGACCTCCAGCAGCACTCGGACGTCCCCGGACAGCCCTCAGTCTCGGTCCACGCTGCTTTCTTCCCAAGGAC
ATGTATATTTGCAGAGCTCCACATACAGAAACACATTATTTTGAGAAATAGGTGTTTTTAAGAAGTTTTACTAC
AGGAATGTCTACTTTTGTAAAGTACAGGTGTTAAAGGCCAGGTGTGCTGTGCCAAAGAGCTCAGCAGAGGCTCA
CGTGGCCCAGGCTGGTGCGCCCGCTGTCTCGGTAAGGGGCGGGTGGTGTGTTTTCCCTTGTGTACCAGAGCAC
ATTCTTTAGGGGACGGCTTTGGGGTCCCACGAGACATGACTAGGAGTTTAAGCAGGACAGTGTGCGTGCACGA
GCTCCGAGCCCAGCACAGACATGCCGGAACCCCCGCGCCTGCTGCTCCCTCCTAGGGAACCCATTTCCGGGGA
ACGCCGTGACTGTGCGGCAGCCTGGAGCTTCTGCAGCCTCTACGAGGGTCCACGCCACGTGGCCTGGGCTGC
CATCTGCCGTCTCTCCACTGGCATCTTGCAAGGGGGCGTTGCTTTTCTGGGCGGCCCTTTTATGTCTTGAGA

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FIGURE 5089B

CACCTGATGTAAAGTTTCTGTAAATCTATTTTCATATCTGACCCACCAAACAGATTCTCTTTAATAAAAAATCCTT
TTTGTAAGTTC

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FIGURE 5090A

CACCCCTTCCATCACCCAGCCTGAAACTCTACCCATTGAACACGAGCTGCCAACTCCGCCCTTGCTTCCCCATTC
CTGGCGACCACTGCTTCTGTCTCTGTGAATTTTACTATTCTAGGCACTTCACAAAAGTGGACTCATACGATATC
TGTAATTTTTCGCTCTGGCTTCTCTATTGAATTCCTAAAGGGGGGTGGGAACTAAGCAGATCACAAGGGAGCTGCC
CACAGAGGTAAAGACAAGGTCAGGTAGGCTGAGAGACGCAGGAAAGCGGGTCAAGGCGTAGGGCTGGAGGGCAGG
GGCGGGCCCTGGGCGTGGGCTGGGGGTCTGCCCGGGGCGCACCCCGGGCGAGGGCTGCCCGGAGGAGCCGAGG
TTGGCGGACAGCTTGGCCCTGAGCTTGAGGGGAAGGCAGCGATGGGACAAAGGACGAGGTCTAGGAAGAGGGTC
TGCAGAGCAGAAAGCACGGGTAGGGGGCGGCTGACGCTCGGAAGACAACGCATGGGAGCCGTGTGCACGTCGGGA
GCTCGGAGTGAGCGTGAGTTCCGTGCCAGGCCCGCGACTCGGCCCGACAGGACAGCGCTCCGGGTGCACGGGGT
CCTGGAGCCGCGCTCGGGGAGGGCGCAGCGGAGGGCGAGCGGCGGGCTTAGGACCCGAGGCGCGGGCGGACTGG
GGGCGGCGGGGCTAGGACCCAGCGGCTCCGGCAGAGCGGAAGCGGCGGGGAGCTTCCGGGAGGGCGGGCTCGCA
GGCACCATGACTCCTGTGAGGATGCAGCACTCCCTGGCAGGTGAGACCTATGCCGTGCCCTTCATCCAGCCAGAC
CTGCGGGCGAGAGGAGGCCGCTCCAGCAGATGGCGGATGCCCTGCAGTACCTGCAGAAGGTCTCTGGAGACATCTTC
AGCAGGTGGGTGCTGCCACTCACCCCCACCTGATGAGAGGGCCATCCCTGTCTGGGCAATCCAGCAACACACC
CTCTGGGAGCAGCCCCCTTGGGGAAATCCCGGTCTGGGGAAACCACTCGGCTTCCCTGTGTGGGAGGGGGCTGAAG
TGAGAGCCCAACTTGAAGCTTTTACTCCTGGGAGTCCAAGAGCTCACTCCCTTCCACCCCACTTAGCCTCCTGG
TTTCTGTGGTGGCTCTGCTCTCAAACTCATGCTTTTCTCCCATTTGAGGGGCTATTCTTTCACGTTTTCTCTG
CAGCCAACAAATATTTACCCAGCAGTGCTCGTGTGCAAGGCAGTGTGGGAATCTCTATATATCCAGCCACGGATA
AGGCAACATACCTCTCCACCTGGAGCGCACATTCTGGCAGGAGAGAAAGACCTAAATAAGCAATAGATGATTAGT
TCTTCAATAACAGTTGTGACAAGGTCTATTGATAATATTTTGTAACTACTAATATTTCATATAAACCGTGACAAC
CATTGATTTGAGTGCAATTAACCTCACACTTCATGAGCAGGCACTGCCGTCTCTCATTTTATAGATGAGGAACTG
AGGCACAGAAGGGCTGAGAGACCTGGCCTAGTGACAGAGCCAGGATTCAAAGCCATAGATCATGGCCCCGGGTTA
TGTAAGTTATTACTGCATCTGTTTCAGGGGAGATGGGGTACTGTGAGGCTCGTCATGGGAAGCCTGGCTTGGTCTC
AGGTGAGGGAAGGCAGACGTGAGGAAATGACATTTATGGTAAAGTCTGAGGGTTGAGTGGGTAGGTGGGAAGAA
CATTCCAGAAAGAAGCACATGAACCTACAGCCTGGAGGTGGAGGACCTAAAGGAAGCCAGCATGGCTGGAGCACG
GAGTGGCCATTGAGGGAGGCGAGCTGGAGGGCTGCAGCTTCTGTATTGGCAGTGCTGACCTCGCACAGTCTTGG
GGCTCCAGTGACTTCACCTCAGTGTTTATCTAACATGAGTGAGTGAATGGTGTGTTGCTCTTTTTTGGTAAAGGTC
CCAGGGGTTGTGGGTACACAGGTCCTGTCTTTGGCCATAAGCAAAGTGAATGAGGCTTGGTCTCCTTCCCAGG
ATCCACACCATGCCTCACATGGTAGACCCAGTGGGAAGTATGTGACTGCCTGACTCAGGTGCCTCTCGTGGTC
CAAGCCATCCCTGCCCTGTCCCTTCCCTGGTTGTCGCCAGACCTGGAGCCCTGCTCCTTCACTTTGCAGCCTCC
TCTTCTGTACCAACTGGGAACCCACCTCTTCTGAAAGTCTTCCCCACTGACTACCGGCTTGCCCCGAGTTT
GTCAAGAATGTCCAGTAACAGGGGACACACAGTGAAGTGACTGAGGGGTACCTTGGAGTTGATGCCTTGGCT
CAGATCCAGCTCCCCTGTTTTCTTCTCTGTAACTTGGGCAACCCCAACCCCTCTAAGCCTCGGTGTTCTCATTT
GTGAAGTTGTGGTAATAATGGTAGCTTCTGGTAGAATTATTTAAATATTAATAATCAAAACATGCAAAGGA
ATGGAACAGTGCCCTGGCACTTAGGAAGCCTTCAGGAAATGCTATCTTCCCTGTTGATAATCTTGACCCGTACA
CTGCCCTTGGTTGCCATTCTATAAACCTGCCACCAATAGTAACAAAGTGTGATGCACCTTTGTGCTTATCTTT
GTGCTAAATGTGCCCGAGGGACACCTAGGGAAGAGGATGCAGGTCTTAAAGGCCATCAGCTCCAGATTATGCC
ACCCCATGTCCAGCACTTAGAATGGAGGCCAAAACCACTTCCCTCGGAAATTGTGTTTCTTCCCAAGATGGGGAC
TGCGTGGTTGCCCTTCTCTGAGGGCAGCGCTGGATTTTGGCGTCTTCCCTTCTCTGCTGCTGCTTGGTACTTGGC
TGTAAGAGATTGCAITGCCCTGCCAGGGATGGGATGAGGAGAGGGCAGGAAGGCATTCTCTGGGTAGTGGAGT
GCTGCGTTTATTGAGTGTGGGTTCTCCAAGCTGCTGGCACAGCGCAGGGAGGGCCAGATGCCTCTCAGGAGCCTT
GGGCTGAGTCTGGCTCCCTCACTCCTGGGTTCCAGGTCACTGCATCTGTCTCTCCACCATGTGCTCCACCTCG
TGCTGGACCTTAAGAGATACCAATTATGTGGCTGCCACTGTGTCTTAGAGGCTGGAATGGGAACACATAGGGCGA
GATTGATTGTTAATTGCTAGCATGAACCGCGTGGGCTTCTCAGGGTCTAGAGTGGAGAGAAATCGGTAAGAATTG
GTGGCACGCTGTGAGAACTCCCAGACCAAGCTAAGCAAAAATTAACCAATCAGTAGAGCAGCCTTCGGAGTAA
GGGCTAAAATGATGTCTCAGGGCCTGGTTTTGCTTCTTCCATGTCAGTTTGTCTTCTTGGGTCTGGCTGCAT
TCCCAGACAGGCCATGCTCTCGTGGTAGCAAGGTGACATGACACAGGGTCAGGTCCAGCAGGAAAGAATGCTGTC
CTGTGTCCCCACTTCTCCAGAAGCCACACTCACTCATCCACCTGGCTTGGTCTCATGTCTATCCAGAATCC
ATTAATGGGGCCAGGGGACTATGACACACCACTTGGCTTAGACTGAGGAGCTCTGTGGGCAGCCCCACCTGAAGC

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FIGURE 5090B

TCTGGGACTAAGCCTGCGAGAGAGATGGATTCCCCAAGGGAAAATGGGGCCATTGCTTGAGTAAAAAGGAAATAGT
TGCTGAAGAGGAAAACCACGTGCTTACTCCACATAGGGCAGACTCCTGGAAGAGGGGGGCAGGGTAGGGAGGTGG
ATATGCAGGTTGCCCTGGCAGGGTCTGGAATGGGGGCTGCAGGCTTGGAGGGAGGCCTCAGTGTGGCTTGGAAC
GTGGTGTATGGTGGTCTGCCGCGAAGGCCGGCCTGCACAGGGGTGGGAGGGGGGTGCTTCTGCATGGGAAGCACA
GACAGCGCTGCCCTCTCCCTTGCACTCAGCTCTCGGGGCATGAGAGGCTAACTTTCCGTGAGCCTGTGGGCCAGGC
CTCTTTGAATGGGGCTGAGGGAGCTTTGCCCTGGTTCTTTGTGTCCCCACGGTGCCACGGGAGGCTCCCTGGCA
GGGTGTGGGGCAGGGCAGTGAGTGAAGAGTTGGGATGAGTGAGTTAGGGCCCACGGATTACTCAAGACAGGACTT
CAAGTTGATTACAGGCGTGTAGGGAGCTGTGATTGGATTTTGAGCAGGGCAGGGATGGGACAGAAGAGTTTGGGG
AAGGTTCCCTCAGGCATCCGTCACAGAAGGGACAAGAAGGGAGAGAGAGTGGATGCCAGGGACACCCAGAAGCTGT
TATTGTAGTCAGGATACGACAGGGGTGAGGCTACAGACAGGGGACTTGCAAGCAGGGAGGGCAGGGTGAGACATT
CAGAGGAAACGACGACAGGAAATGGTGACAGATAGGGAACGAGGATGAAGGGAAGGGAGAGCCAGTGACGACTGG
CAGTGGAGTGGGGAGCACCGCCACCTCTCCTCCTCCACTTGCCCCCTCTGTGGCACTGGACAAGCTAGTGGGCTT
TTCGTTGTCCATGGGCTTTTTTCGGTGGGGATGTGACCAGCTTTGAACCCGTCCCCCTTAAACATGCTCCTCCTGCA
CGGAAGAGACAGGGGCAGGGGAGAGACTCTCTCCCCACCACCCGGCTCAGGCCCCAGCACAGCCCGGCCCTCTGGC
CTCACTGGCGTCTGTGCCCAGTGACGCAGGCAGGTGAGCTCCTGGCAAATTAGCATTGCAGGCTGTGCTCTCTCC
TCCTGCTCTGCTGCAGCTGGGAGTGTGCAGAGACTGGAGGGGATGACAGTCACCCCTCTGTTTTCTGTGGTGGCTC
TGTTTTCTGTGGTGTGGATGCACCTCTGTTTTCTGTGGTGGCTCCAAGAGAGTGCACGGTCCCTGCTGATTGAA
AGAAGGATGAAGGGCAGAAGAGGGGCGGGGAGCTGTGTGCCCTAAGATCTCATTGCCTTTTTATGCCGATTAAACA
TGCTTTTAGCCCCACTGAGCTTATAGTTAACAGAAAGTTCCAGGTCTTTCTTCACCTGAACTGTGTCTAAAGCA
AGTTCCTCCACCTTCTGTATTTATACGCTTGATTTTTAAACCTAAATGTTGGGCTTCACATTTGTTCTTGTA
AATTCATCTTGGTGATTGCAGTCTACCCCTCTGGCC

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FIGURE 5091

MRGPSLSWAIPATHPLGAAPLGNPGEPIWLPVGGAEVRAQLGSFYSWESKSSLPSTPLSLLVSCGGSALTTH
AFPPIGGPIPSRFPAANKYLPSSARVQGSVGISIYPATDKATYLTWSAHSGRERP

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FIGURE 5092

AGATGATGATTATTCCCCACCTTCTAAGAGACAAAGACCAACGAGCCGCCACAGCCACCAGTCCCAGAACCCGCC
AATGCTGGGGAACGGAAAATGAGGGAGTTCAACTCTGGCCCTCACAATCCAGTGGAGGAGACGCAACTCATCTGC
CTCTGTCCCTCTGGGCACGCCTCGTGCCAGGTGCATCTGTGGACAGGGGCCATGCTCCTGGGCTTCCAAAGTTGG
AGAAAGCTGCCAGGCTCAGGTCTGAAGGCCAGAATTCTACAGTAAGTCTACTGAGTCAAGGTGGGAGCAGGGTC
GGTAGCTTCCGAGGCTCTGCGGGAGAATCTGTTTCCTGGCCGTAGAGGTGGCCTGCACTCCTCAGCCTGTGCTGC
CCGTCTCGAATGACTGGAGTTTCTGCTTCTGTCACTACACCTCCCACCCTCTCCATCACCCTGCTCTGCTCTTAC
AAGGATCCGAAGAAATGGAATCATCGTATCGCTGATCTACGTAAACAAACTGAAGAATTGTCTGAAAGAAAATAT
GACATGAACTTATGAATCAATAGGTGAAGATTTACAACCTGATAAATCAACTTTGTGAGCTCGAGCTGTAAAAG
CCAAAGGTCCGGTGATGATCCCATACCCCTTTTTTCCAGTCTCATGTTGAAGATTTTTATGTAGAAGGCCCTTCCCA
AAGGAATTTTTTTTTTTTTTTTTTTTTTTTGGAGATGGAGTTTCACTCTTATCGCCCAGGCTGGGGTGCAATGGCAC
AACCTTGCTGGTCACTGCAACCTCTGCCTCCTGGGTTCAAGAAATTCTCCTGCCCTTAGCCTCCCAAGTCACTGGG
ATTACAGGTGCCCACCACACACAGGCTAATTTTTGTATTTTTAGTGGAGATGCGGTTTACCATGTTGGCCGG
GCCAGTCTCGAATCCTGACGTCAAGTGATCTTCCCGCCTCGACTCCTGATATCAAGTGATCTTCCCGCCTCGGC
CTCCCAGAGTGCTGAGATTACAGACGTGAACCCATGCCTGGCCAGGAATTTTGTTTTTTAGGAAGGCTTTCTACT
AATGGAATTCCTGGCCTTGAGAGGATGTTACTTTAGAAGGAAAGGATTTTTTGTATTATAAAGCTGGACCTACC
ATGAAAGACTTCTGAATCCAGGAAGAGAAACTGACTGGGCAACATGTTATTCAGAAACAGGACCTTGCCCTGTCA
CTCAGGATGGAGTTTCACTGGTCTATCATGGCTCATTATAGCCTCAAACCTCCCAGGCTCAAGCAATCCTACCATG
TCAGCCTTCCCAGTAGCTGGAACACAGATACCGGGTCTCACACTGTACCCAGGCTGGAGTACAGTGGCACAAC
CTCTGCTCACTGCAGCCTCCACCTGCCAGGCTCAAGCAATTCTCCTGCCTCAGCCTCCCAGTAGCTGGTGATTT
CCAGGAAGTGCGCTCACAATGACTCAAGCTGCCACATACTGTTGATTGTGAAATGCCAGTTGAAGCATATGTCCT
GCAAGCTTAGGGGTGCTACAAGTTGACCACTGCAGCAGTAAAGATGACTCTGAAGAACGGCGTGGGATGGTTCCCT
TTCAAATGCACTTGAGCAGCGGTCTCCAACCACAGGGCCACAGAGCTGGAGCTGGATCTACCATGAAAGACTTGT
GAATCCAGGAAGAGAGACTGACTGGGCAACATGTTATTCAGAATCTCCCTGTGCCATCCAGGCTGGAGTGCAGTG
ATGTGATCATAGCTCACTATAGCTTTGGCCTTCTGAGATCAAGCAATCCTCCCATCTCAACCTCCCAAGTAGCTA
GGACTACACACGCATGCCACCCATGCCCAGATCATTTTTTGTAGAGTCAGAGTTTACCCTGGTGGCCAGGTTGGC
CATGTTGGCCAGATGGGGTCTTCTTTTTGTTGCCAGGCTGGCCACAAATCCTGGGCTCAAGTGATCCTCCCACC
TCGTCCCTGTAGAGATGAGATTTAGTTATGTGCTCCAGGCTGATCTCAAACCTCCTGGGCTAAATCGATTGTCTCA
CCTCAGCCTCTCAAGTATGTTATGAAGGTTATATGTTAGGAAGGGTCCCAGGAGGTAAACCCACACAGATGGGAT
TTGGGCATAGGTTTGGTTTCCCAGGGGGCAGTGCTGAGCTCTTTGCCAGTGGGAAATGGGATGCTGGTGATTTC
AGTAGGTGACCTCACAGTGACTCAAGCTACCACTTACTGTTGATTGTGACGAAATGCCAGCTGAGGCACATGCCT
TGGGAGCTAAGTGTTGCTGCCCCTTGACCCTGTGAAGACTGGTGTGGGAAGGGTCGTTTTGGATGCACTTGAGC
AGGGGTCCCCAACCCCTGAGCCATGGAGCCGCAAGGAGCCACACAGCAGGAGGTGGGAACATCCAGTTGCAGGAA
AACAAGCTTAACACGCCCCTGATTCTACATTATGCTCCTACCTCCCGGCAGCCTCTCCAGGCCCAGAACTTTCT
CCAGTCAGCCTCTACAGACCAAGCTCATGACTCACAATGGCCTATTTAGGCCATACCCTACGTCACGGCAGCCT
CCGAGATGAGGCTACTGCCTCACAACAGCCTCCACAGGCAGCTCCATCGTTACAATGGCCTCTTTAGACCCA
GCTCCTGCCTCCCAGCCTTCTCTCCAGGCCCTGAACCTTCTCAAGTC

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FIGURE 5093

GCGACGGGACGCGCTGGGACCGGCGTCGGGGGTCGCGGGGACCATGCAGCGGAGGTGGGTCTTCGTGCTGCTCGA
CGTGCTGTGCTTACTGGTCGCCGCCCTGCCCTTCGCTATCCTGACGCTGGTGAACGCCCCGTACAAGCGAGGATT
TTACTGCGGGGATGACTCCATCCGGTACCCCTACCGTCCAGATACCATCACCCACGGGCTCATGGCTGGGGTCAC
CATCACGGCCACCGTCATCCTTGCTCTCGGCCGGGGAAGCCTACCTGGTGTACACAGACCGGCTCTATTCTCGCTC
GGACTTCAACAACACTACGTGGCTGCTGTATACAAGGTGCTGGGGACCTTCCTGTTTGGGGCTGCCGTGAGCCAGTC
TCTGACAGACCTGGCCAAGTACATGATTGGGCGTCTGAGGCCCAACTTCCTAGCCGCTCGCGACCCCGACTGGAG
CCGGGTCAACTGCTCGGTCTATGTGCAGCTGGAGAAGGTGTGCAGGGGAAACCTGCTGATGTCACCGAGGCCAG
GTTGTCTTTCTACTCGGGACACTCTTCCTTTGGGATGTACTGCATGGTGTTCCTTGGCGCTGTATGTGCAGGCACG
ACTCTGTTGGAAGTGGGCACGGCTGCTGCGACCCACAGTCCAGTTCTTCCTGGTGGCCTTTGCCCTCTACGTGGG
CTACACCCGCGTGTCTGATTACAAACACCACTGGAGCGATGTCTTGGCTCCTGCAGGGGGGCACTGGTGGC
TGCCCTCACTGTCTGCTACATCTCAGACTTCTTCAAAGCCCGACCCCCACAGCACTGTCTGAAGGAGGAGGAGCT
GGAACGGAAGCCAGCCTGTCACTGACGTTGACCTGGGCGAGGCTGACCACAACCACTATGGATAACCCGCACTC
CTCTCCCTGAGGGCCGGACCCCGCCAGGCAGGGAGCTGCTGTGAGTCCAGCTGATGCCACCCAGGTGGTCCCTC
CAGCCTGGTTAGGCACTGAGGGTTCTGGACGGGCTCCAGGAACCTGGGCTGATGGGAGCAGTGAGCGGTTCCGC
TGCCCCCTGCCCTGCACTGGACCAGGAGTCTGGAGATGCCTGGGTAGCCCTCAGCATTTGGAGGGGAACCTGTTT
CCGTCGGTCCCCAAATATCCCCTTCTTTTTATGGGGTTAAGGAAGGGACCGAGAGATCAGATAGTTGCTGTTTTG
TAAATGTAATGTATATGTGGTTTTTAGTAAATAGGGCACCTGTTTCAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 5094

MQRRWVFVLLDVLCLLVASLPFFAILTLVNAPYKRGFYCGDDSI RYPYRPDTITHGLMAGVTITATVILVSAGEAY
LVYTDRLYSRSDFN NYVA AVYKVLGTF LF GA AVSQSLD LAKYMI GR LRPNFLAVCDPDWSRVNCSVYVQLEKVC
RGNPADVTEARLSFYSGHSSFGMYCMVFLALYVQARLCWKWARLLRPTVQFFLVAFALYVG YTRVSDYKHHWSDV
LVGLLQGALVAALTVCYISDFFKARPPQHCLKEEELERKPSLSLTLTLGEADHNHYGYPHSSS

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FIGURE 5095

GCCGCGGGCGGCGGCGGCAGCGGTTGGAGGTTGTAGGACCGGCGAGGAATAGGAATCATGGCGGCTGCGCTGTTC
GTGCTGCTGGGATTTCGCGCTGCTGGGCACCCACGGAGCCTCCGGGGCTGCCGGCACAGTCTTCACTACCGTAGAA
GACCTTGGCTCCAAGATAC TCCTCACCTGCTCCTTGAATGACAGCGCCACAGAGGTCACAGGGCACCGCTGGCTG
AAGGGGGGCGTGGTGTGAAGGAGGACGCGCTGCCCGGCCAGAAAACGGAGTCAAGGTGGACTCCGACGACCAG
TGGGGAGAGTACTCCTGCGTCTTCCTCCCCGAGCCCATGGGCACGGCCAACATCCAGCTCCACGGGCCTCCAGA
GTGAAGGCTGTGAAGTCGTGAGAACACATCAACGAGGGGGAGACGGCCATGCTGGTCTGCAAGTCAGAGTCCGTG
CCACCTGTCACTGACTGGGCCTGGTACAAGATCACTGACTCTGAGGACAAGGCCCTCATGAACGGCTCCGAGAGC
AGGTTCTTCGTGAGTTCTTCGCAGGGCCGGTCAGAGCTACACATTGAGAACCTGAACATGGAGGCCGACCCCGGC
CAGTACCGGTGCAACGGCACCCAGCTCCAAGGGCTCCGACCAGGCCATCATCACGCTCCGCGTGCGCAGCCACCTG
GCCGCCCTCTGGCCCTTCCTGGGCATCGTGGCTGAGGTGCTGGTGTGGTCAACATCATCTTCATCTACGAGAAG
CGCCGGAAGCCCGAGGACGTCTGGATGATGACGACGCCGGCTCTGCACCCCTGAAGAGCAGCGGGCAGCACCAG
AATGACAAAGGCAAGAACGTCCGCCAGAGGAAC TCTTCCTGAGGCGAGGTGGCCCGAGGACGCTCCCTGCTCCACG
TCTGCGCCGCCCGCGGAGTCCACTCCCACTGCTTGCAAGATTCCAAGTTCTCACCTCTTAAAGAAAACCCACCCC
GTAGATTCCCATCATACACTTCCTTCTTTTTTAAAAAAGTTGGGTTTTCTCCATTCAAGATTCTGTTCCCTTAGGT
TTTTTCTTCTGAAGTGTTTACGAGAGCCCGGGAGCTGCTGCCCTGCGGCCCCGTCTGTGGCTTTTCAGCCTCT
GGGTCTGAGTCATGGCCGGGTGGGCGGCACAGCCTTCTCCACTGGCCGGAGTCAGTGCCAGGTCCCTTGCCCTTTG
TGGAAGTCACAGGTCACACGAGGGGGCCCCGTGCTCCTGCTGTCTGAAGCCAATGCTGTCTGGTTGCGCCATTTT
TGTGCTTTTATGTTTAAATTTTATGAGGGCCACGGGTCTGTGTTGACTCAGCCTCAGGGACGACTCTGACCTCTT
GGCCACAGAGGACTCACTTGCCACACCGAGGGCGACCCGTCACAGCCTCAAGTCACTCCCAAGCCCCCTCCTT
GTCTGTGATCCGGGGGCAGCTCTGGAGGGGGTTTGCTGGGGAACTGGCGCCATCGCCGGGACTCCAGAACCGCA
GAAGCCTCCCCAGCTCACCCCTGGAGGACGGCCGGCTCTCTATAGCACCAGGGCTCACGTGGGAACCCCCCTCCC
ACCCACCGCCACAATAAAGATCGCCCCCACCTCCACCCTC

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FIGURE 5096

MAAALFVLLGFALLGTHGASGAAGTVFTTVEDLGSKILLTCSLNDSEVTGHRWLKGGVVLKEDALPGQKTEFK
VDSDDQWGEYSCVFLPEPMGTANIQLHGPPRVKAVKSSEHINEGETAMLVCKSESVPFVTDWAWYKITDSEDKAL
MNGSESRRFFVSSSQGRSELHIENLNMEADPGQYRCNGTSSKGSQAIITLRVRSHLAALWPFGLGIVAEVLVLVTI
IFIYEKRRKPEDVLDDDDAGSAPLKSSGQHQNCKGKNVRQRNSS

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FIGURE 5097

CGGGCGGGCGGGCGGCAGCGGTTGGAGGTTGTAGGACCGGCGAGGAATAGGAATCATGGCGGCTGCGCTGTTTCGTGC
TGCTGGGATTTCGCGCTGCTGGGCACCCACGGAGCCTCCGGGGCTGCCGGCACAGTCTTCACTACCGTAGAAGACC
TTGGCTCCAAGATACTCCTCACCTGCTCCTTGAATGACAGCGCCACAGAGGTCACAGGGCACCGCTGGCTGAAGG
GGGGCGTGGTGTGAAGGAGGACGCGCTGCCCCGCCAGAAAACGGAGTTCAAGGTGGACTCCGACGACCAGTGGG
GAGAGTACTCCTGCGTCTTCTCCCCGAGCCCATGGGCACGGCCAACATCCAGCTCCACGGGCCTCCAGAGTGA
AGGCTGTGAAGTCGTGAGAACACATCAACGAGGGGGAGACGGCCATGCTGGTCTGCAAGTCAGAGTCCGTGCCAC
CTGTCACTGACTGGGCCTGGTACAAGATCACTGACTCTGAGGACAAGGCCCTCATGAACGGCTCCGAGAGCAGGT
TCTTCGTGAGTTCTTCGCAGGGCCGGTCAGAGCTACACATTGAGAACCTGAACATGGAGGCCGACCCCGGCCAGT
ACCGGTGCAACGGCACCCAGCTCCAAGGGCTCCGACCAGGCCATCATCACGCTCCGCGTGCGCAGCCACCTGGCCG
CCCTCTGGCCCTTCTGGGCATCGTGGCTGAGGTGCTGGTGTGGTCAACATCATCTTCACTACGAGAAGCGCC
GGAAGCCCCGAGGACGTCTGGATGATGACGACGCCGGCTCTGCACCCCTGAAGAGCAGCGGGCAGCACCAGAATG
ACAAAGGCAAGAACGTCCGCCAGAGGAACCTCTTCTGAGGTGGCCCGAGGACGCTCCCTGCTCCACGTCTGCGCC
GCCGCCGGAGTCCACTCCCAGTGCTTGCAAGATTCCAAGTTCTCACCTCTTAAAGAAAACCCACCCCGTAGATT
CCATCATACACTTCTTCTTTTTTAAAAAAGTTGGGTTTTCTCCATTGAGGATTCTGTTCTTCTAGGTTTTTTTCC
TTCTGAAGTGTTTACGAGAGCCCCGGGAGCTGCTGCCCTGCGGCCCGTCTGTGGCTTTCAGCCTCTGGGTCTGA
GTCATGGCCGGGTGGGCGGCACAGCCTTCTCCACTGGCCGGAGTCAGTGCCAGGTCTTGGCCCTTTGTGGAAAGT
CACAGGTACACGAGGGGGCCCCGTGCTCTGCTGTCTGAAGCCAATGCTGTCTGGTTGCGCCATTTTTGTGCTTT
TATGTTTAATTTTATGAGGGCCACGGGTCTGTGTTGACTCAGCCTCAGGGACGACTCTGACCTCTTGGCCACAG
AGGACTCACTTGCCACACCGAGGGCGACCCCGTCACAGCCTCAAGTCACTCCCAAGCCCCCTCCTTGTCTGTGC
ATCCGGGGGCAGCTCTGGAGGGGGTTTGTGGGGAATGGCGCCATCGCCGGGACTCCAGAACCGCAGAAGCCTC
CCCAGCTACCCCTGGAGGACGGCCGGCTCTCTATAGCACCAGGGCTCACGTGGGAACCCCCCTCCACCCACCG
CCACAATAAAGATCGCCCCCACCTCCACCCCTC

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FIGURE 5098

GGCACGAGGATACCTCCTCATCAACTCTGACATAGTGTGCGAACAGGACATCTACGAGTGGACTAAGATCAATGG
CCGGCGGCGGGTGCCGCGCGGGGGGCGGGCGGCGGAGTAGGTGGCGGCGGCCATGCCCGAGGCGTCGCCGCAT
CCCGGACGGTACTTCTGCCACTGCTGCTCCGTGGAGATCGTCCCGCGCCTGCCGGATTATATCTGTCCAAGATGC
GAGTCTGGTTTTATCGAGGAGCTTCCGGAAGAGACCAGGAGCACAGAAAATGGTTCTGCCCCCTCCACAGCTCCC
ACAGACCAGAGCCGGCCACCGCTGGAGCACGTGGACCAGCACCTGTTACGCTGCCGAGGGCTACGGACAGTTT
GCTTTCGGCATCTTCGATGACAGCTTCGAGATCCCCACGTTCCCTCCTGGGGCGCAGGCTGACGACGGCAGGGAC
CCTGAGAGCCGGCGGGAGAGAGACCATCCGTCCCGGCACCGGTACGGCGCCCGACAGCCCCGCGCCCGCCTCACC
ACGCGGCGGGCCACCGGCCGGCACGAAGGCGTCCCCACGCTGGAAGGGATCATCCAGCAGCTCGTCAACGGCATC
ATCACGCCCCGCCACCATCCCCAGCCTGGGGCCCCCTGGGGAGTCTGCACTCAAACCCCTATGGACTACGCTGGGGG
GCCAACGGCCTGGATGCCATCATCACACAGCTCCTCAATCAGTTTGAAAACACAGGCCCCCACCGGCAGATAAA
GAGAAAATCCAGGCCCTCCCCACCGTCCCCGTCACTGAGGAGCACGTAGGCTCCGGGCTCGAGTGCCCTGTGTGC
AAGGACGACTACGCGCTGGGTGAGCGTGTGCGGCAGCTGCCCTGCAACCACCTGTTCCACGACGGCTGCATCGTG
CCCTGGCTGGAGCAGCACGACAGCTGCCCCGTCTGCCGAAAAAGCCTCACGGGACAGAACACGGCCACGAACCCC
CCTGGCCTCACTGGGGTGAGCTTCTCCTCCTCGTCGTCATCGTCTCCTCCAGCTCGCCCAGCAACGAGAACGCC
ACAAGCAACTCGTGAGCCCCACGTGCGCCGTCGGGAAAGCACGGGGCCTTTCCCACCCACCCCTCAGCCAGCGCCAC
ACGGCACCCACAGACTGGGTGCCCCGGCGGCGCCACGCTTGGCTGGTCAGCGCTGCAGGTCCCGCCTGTTCCAGG
GCAGGACCCGGGCCCCGGCCACCGGCCCCCTGGCTTGGGAAGGCGTGGGCCACATGGTCCCCCTCTGGGGCGTCCC
CAGCCTCCCCGTCTCTGTCTAACCTCACCCCTCTAAACGTTTCAGCGGTGGAAAGATTTTTATAATTTTAAATTAT
TACTGCTTTGAAATAAACGGACGTTTGAGCTCACGTGGCGGCCATGCATGGTTTGTGGCGGAAGACGGGGCCAG
CGGCTCCCCCAGCGCTGAAGCACGGGGTTCAGCGGCTCCCCCAGTGCTGCAGGTGCCGCCAGGACGGGCCACGTG
GGCCCCAGCCTCCCCCTCGGCCGCTCCACGACCCGGAGTAGGGGGGCTCGGGACCATGAGGATGACCAGCAA
ATTCAAGAACAAAAC TGCTCCAACAGACTTTTTTAAAGGAAAAAATATGTGTATCTTGAAAGCTATTTAAATAC
ACTACTTACAAAGAAAAAAAAAAAAAAAAAAAA

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FIGURE 5099

MAEASPHPGRYFCHCCSVEIVPRLPDYICPRCESGFIEELPEETRSTENGSA
PSTAPTDQSRPPLEHVDQHLFTL
PQGYGQFAFGIFDDSFETFPFGAQADDGRDPESRRERDHP
SRHRYGARQPRARLTTRRATGRHEGVPTLEGII
QQLVNGIITPATIPSLGPWGVLSNPMDYAWGANGLDAIITQLLNQFENTG
PPPADKEKIQALPTVPVTEEHVGS
GLECPVCKDDYALGERVRQLPCNHLFHDGCIVPWLEQHDSCPVCRKSLTG
QNTATNPPGLTGVSFSSSSSSSSSS
SPSNENATSNS

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FIGURE 5100

CTTGTGAGTCTATAACTCGGAGCCGTTGGGTGCGTTCTGCTATTCCGGCGCCTCCACTCCGTCCCCCGCGGGTC
TGCTCTGTGTGCCATGGACGGCATTGTCCAGATATAGCCGTTGGTACAAAGCGGGGATCTGACGAGCTTTTCTC
TACTTGTGTCACTAACGGACCGTTTATCATGAGCAGCAACTCGGCTTCTGCAGCAAACGGAAATGACAGCAAGAA
GTTCAAAGGTGACAGCCGAAGTGCAGGCGTCCCCTCTAGAGTGATCCACATCCGGAAGCTCCCCATCGACGTCAC
GGAGGGGGAAGTCATCTCCCTGGGGCTGCCCTTTGGGAAGGTACCAACCTCCTGATGCTGAAGGGGAAAAACCA
GGCCTTCATCGAGATGAACACGGAGGAGGCTGCCAACCCATGGTGAAGTACTACACCTCGGTGACCCCTGTGCT
GCGCGGCCAGCCCATCTACATCCAGTTCTCCAACCACAAGGAGCTGAAGACCGACAGCTCTCCAACCAGGCGCG
GGCCAGGCGGCCCTGCAGGCGGTGAAGTCCAGTCCGGGAACCTGGCCTTGGCTGCCTCGGCGGCGGCGCGT
GGACGCAGGGATGGCGATGGCCGGGCAGAGCCCGTGCTCAGGATCATCGTGGAGAACCTCTTCTACCCTGTGAC
CCTGGATGTGCTGCACCAGATTTTCTCCAAGTTCGGCACAGTGTTGAAGATCATCACCTTACCAAGAACAACCA
GTTCCAGGCCCTGCTGCAGTATGCGGACCCCGTGAGCGCCAGCACGCCAAGCTGTGCTGGACGGGCAGAACAT
CTACAACGCCTGCTGCACGCTGCGCATCGACTTTTCCAAGCTCACCAGCCTCAACGTCAAGTACAACAATGACAA
GAGCCGTGACTACACACGCCCAGACCTGCCTTCCGGGACAGCCAGCCCTCGCTGGACCAGACCATGGCCGCGGC
CTTCGCCTCTCCGTATGCAGGAGCTGGTTTCCCTCCCACCTTTGCCATTCTCTCAAGCTGCAGGCCTTTCCGTTCC
GAACGTCCACGGCGCCCTGGCCCCCTGGCCATCCCTCGGCGGCGGCGGCGAGCTGCGGCGGCAGGTTCGGATCGC
CATCCCGGGCCTGGCGGGGGCAGGAAATTCTGTATTGCTGGTCAGCAACCTCAACCCAGAGAGAGTACACCCCA
AAGCCTCTTTATTCTTTTCGGCGTCTACGGTGACGTGCAGCGCGTGAAGATCCTGTTCAATAAGAAGGAGAAGCG
CCTAGTGACAGATGGCGGACGGCAACCAGGCCAGCTGGCCATGAGCCACCTGAACGGGCACAAGCTGCACGGGAA
GCCATCCGCATCACGCTCTCGAAGCACCAGAACGTGCAGCTGCCCCGCGAGGGCCAGGAGGACCAGGGCCTGAC
CAAGGACTACGGCAACTACCCCTGCACCGCTTCAAGAAGCCGGGCTCCAAGAAGTTCAGAACATATTCCCGCC
CTCGGCCACGCTGCACCTCTCCAACATCCCGCCCTCAGTCTCCGAGGAGGATCTCAAGGTCTGTTTTCCAGCAA
TGGGGGCGTCTGCAAAGGATTCAAGTTCTTCCAGAAGGACCAGCAAGATGGCACTGATCCAGATGGGCTCCGTGGA
GGAGGCGGTCCAGGCCCTCATTGACCTGCACAACCACGACCTCGGGGAGAACCACCACCTGCGGGTCTCCTTCTC
CAAGTCCACCATCTAGGGGACAGGCCCCACGGCCGGGCCCCCTGGCGACAACCTTCCATCATTCCAGAGAAAAG
CCACTTTAAAAACAGCTGAAGTGACCTTAGCAGACCAGAGATTTTATTTTTTAAAGAGAAATCAGTTTACCTGT
TTTTAAAAAATTAATCTAGTTACCTTGCTCACCCTGCGGTGACAGGGACAGCTCAGGCTCTTGGTGACTGTG
GCAGCGGAGTTCCCGGCCCTCCACACCCGGGGCCAGACCTCGGGGCCATGCCTTGGTGGGGCCTGTGTGGGC
GTGGGGCCTGCAGGTGGGCGCCCCGACCACGACTTGGCTTCTTGTGCTTAAAAACCTGCCTTCTGAGCCA
CACACCCACCCGGGTGTCTGGGGACCAAGGGGTGGGGGGGTACACCAGAGAGAGGCAGGGGGCCTGGCCGG
CTCCTGCAGGATCATGCAGCTGGGGCGCGGCGGCCGCGGCTGCGACACCCCAACCCAGCCCTCTAATCAAGTCA
CGTGATTCTCCCTTACCCCGCCCCAGGGCCTTCCCTTCTGCCCCAGGCGGGCTCCCCGCTGCTCCAGCTGCG
GAGCTGGTCGACATAATCTCTGTATTATATACTTTGCAGTTGCAGACGTCTGTGCCTAGCAATATTTCCAGTTGA
CCAAATATTCTAATCTTTTTTCAATTATATGAAAAGAAATAGTTTTAAGTAACTTTTTATAGCAAGATGATACA
ATGGTATGAGTGAATCTAACTTCCTTGTTGATTACCTTGATGCTGTTACTTTTATTTTATTCCTTGTAATT
AAGTCACAGGCAGGACCCAGTTTCCAGAGAGCAGGCGGGGCCCCAGTGGGTGAGGCACAGGGAGCCCCGGTCC
TATCTTAGAGCCCTGAGCTTCAGGGAAGGGCGGGCGTGTGCCGCCCTCTGGCATCGCCTCCGGTTGCCTTACA
CCACGCCCTCACCTGCAGTCGCCTAGAAAACCTGCTCTCAAACCTCAGGGTTTTTTCTTCTTCAAATTTTGAC
CAAAGTCTCATTTCTGTGTTTTGCTGCTCTGATGCTGGGACCCGGAAGGCGGGCGCTCCTCTGTCTTCTCTG
TGCTCTTTCTACCGCCCCCGCTCCTGTCCCGGGGCTCTCCTAGGATCCCTTTCCGTAAAGCGTGTAAACAAG
GGTGTAATAATTTATAATTTTTTATACCTGTTGTGAGACCCGAGGGGCGGCGGCGGTTTTTTATGGTGACACA
AATGTATATTTTGTAAACAGCAATTCAGGCTCAGTATTGTGACCGCGGAGCCACAGGGGACCCACGCACATTC
CGTTGCCCTTACCCGATGGCTTGTGACGCGGAGAGAACCGATTAAACCGTTTGAGAACTCCTCCCTGTCTAGC
CCTGTGTTGCTGTGGACGCTGTAGAGGCAGGTGGCCAGTCTGTACCTGGACTTCGAATAAATCTTCTGTATCC
TCGCTCCGTTCCGCCTTAAA

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FIGURE 5101

MDGIVPDIAVGTKRGSDELFSTCVTNGPFIMSSNSASAANGNDSKKFKGDSRSAGVPSRVIHIRKLPIDVTEGEV
ISLGLPFGKVTNLLMLKGKNQAFIEMNTEEAANTMVNYTSTVTPVLRGQPIYIQFSNHKELKTDSSPNQARAQAA
LQAVNSVQSGNLALAASAAAVDAGMAMAGQSPVLRIIVENLFYPVTLDDVLHQIFSKFGTVLKIITFTKNNQFQAL
LQYADPVSAQHAKLSLDGQNIYNACCTLRIDFSKLTSLNVKYNNDKSRDYTRPDLP SGDSQPSLDQTMAAAFASP
YAGAGFPPTFAIPQAAGLSVPNVHGALAPLAIP SAAAAAAGRIAIPGLAGAGNSVLLVSNLNPervTPQSLFI
LFGVYGDVQRVKILFNKKENALVQ MADGNQAQLAMSHLNGHKLHGKPIRITLSKHQNVQLPREGQEDQGLTKDYG
NSPLHRFKKPGSKNFQNIFFPSATLHLSNIPPSVSEEDLKVLFSNNGGVVKGFKFFQKDRKMALIQMGSVEEAVQ
ALIDLHNHDLGENHHLRVSF SKSTI

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FIGURE 5102

CTTGTGAGTCTATAACTCGGAGCCGTTGGGTTCGGTTCTGCTATTCCGGCGCCTCCACTCCGTCCCCCGCGGGTC
TGCTCTGTGTGCCATGGACGGCATTGTCCCAGATATAGCCGTTGGTACAAAGCGGGGATCTGACGAGCTTTTCTC
TACTTGTGTCACTAACGGACCGTTTATCATGAGCAGCAACTCGGCTTCTGCAGCAAACGGAAATGACAGCAAGAA
GTTCAAAGGTGACAGCCGAAGTGCAGGCGTCCCTCTAGAGTGATCCACATCCGGAAGCTCCCCATCGACGTCAC
GGAGGGGGAAGTCATCTCCCTGGGGCTGCCCTTTGGGAAGTCCACCAACCTCCTGATGCTGAAGGGGAAAAACCA
GGCCTTCATCGAGATGAACACGGAGGAGGCTGCCAACACCATGGTGAAGTACTACACCTCGGTGACCCCTGTGCT
GCGCGGCCAGCCCATCTACATCCAGTTCTCCAACCACAAGGAGCTGAAGACCGACAGCTCTCCAACCAGGCGCG
GGCCAGGCGGCCCTGCAGGCGGTGAAGTCCGTCAGTCCGGGAACCTGGCCTTGGCTGCCTCGGCGGCGGCCGT
GGACGCAGGGATGGCGATGGCCGGGCAGAGCCCCGTGCTCAGGATCATCGTGGAGAACCTCTTCTACCTGTGAC
CCTGGATGTGCTGCACAGATTTTCTCCAAGTTCCGCACAGTGTGAAGATCATCACCTTACCAAGAACAACCA
GTTCCAGGCCCTGCTGCAGTATGCGGACCCCGTGAGCGCCAGCACGCCAAGCTGTGCTGGACGGGCAGAACAT
CTACAACGCCCTGCTGCACGCTGCGCATCGACTTTTCCAAGTCCACAGCCTCAACGTCAAGTACAACAATGACAA
GAGCCGTGACTACACACGCCAGACCTGCCTTCCGGGGACAGCCAGCCCTCGCTGGACCAGACCATGGCCGCGGC
CTTCGGTGCACCTGGTATAATCTCAGCCTCTCCGTATGCAGGAGTGGTTTCCCTCCACCTTTGCCATTCTCTCA
AGCTGCAGGCCTTTCCGTTCCGAACGTCCACGGCGCCCTGGCCCCCTGGCCATCCCCCTCGGCGGCGGCGGCAGC
TGCGGCGGCAGGTCCGATCGCCATCCCGGGCCTGGCGGGGGCAGGAAATCTGTATTGCTGGTCAGCAACCTCAA
CCCAGAGAGAGTCACACCCCAAAGCCTCTTTATTCTTTTCGGCGTCTACGGTGACGTGCAGCGCGTGAAGATCCT
GTTCAATAAGAAGGAGAAGGCCCTAGTGAGATGGCGGACGGCAACCAGGCCAGCTGGCCATGAGCCACCTGAA
CGGGCACAAGCTGCACGGGAAGCCCATCCGCATCACGCTCTCGAAGCACCAAGCTGCAGCTGCCCCGCGAGGG
CCAGGAGGACCAGGGCCTGACCAAGGACTACGGCAACTCACCCCTGCACCGCTTCAAGAAGCCGGGCTCCAAGAA
CTTCCAGAACATATTCCCGCCCTCGGCCACGCTGCACCTCTCCAACATCCCGCCCTCAGTCTCCGAGGAGGATCT
CAAGGTCTGTGTTTTCCAGCAATGGGGGCGTCTGTCAGGATTCAAGTTCTTCCAGAAGGACCGCAAGATGGCACT
GATCCAGATGGGCTCCGTGGAGGAGGCGGTCCAGGCCCTCATTGACCTGCACAACCACGACCTCGGGGAGAACCA
CCACCTGCGGGTCTCCTTCTCCAAGTCCACCATCTAGGGGCACAGGCCCCCACGGCCGGGCCCCCTGGCGACAAC
TTCCATCATTCCAGAGAAAAGCCACTTTAAAAACAGCTGAAGTGACCTTAGCAGACCAGAGATTTTATTTTTTTA
AAGAGAAATCAGTTTACCTGTTTTTAAAAAATTAATCTAGTTACCTTGCTCACCTGCGGTGACAGGGACAG
CTCAGGCTCTTGGTGACTGTGGCAGCGGGAGTTCCCGGCCCTCCACACCCGGGGCCAGACCTCGGGGCCATGCC
TTGGTGGGGCTGTGTCCGGCGTGGGGCTGCAGGTGGGCGCCCCGACCACGACTTGGCTTCTTGTGCTTAAA
AACTTGCTTCTGTCAGCCACACACCCACCCGGGGTGTCTGGGGACCCAAGGGGTGGGGGGGTACACCAGAG
AGAGGACGGGGGCTGGCCGGCTCCTGCAGGATCATGCAGCTGGGGCGCGGCGGCGCGGCTGCGACACCCCAAC
CCCAGCCCTCTAATCAAGTCACGTGATTCTCCCTTCACCCCGCCCCAGGGCCTTCCCTTCTGCCCCAGGCGGG
CTCCCGCTGCTCCAGCTGCGGAGCTGGTGCACATAATCTCTGTATTATATACTTTGCAGTTGCAGACGTCTGTG
CCTAGCAATATTTCCAGTTGACCAAATATTCTAATCTTTTTTCAATTTATATGCAAAAGAAATAGTTTTAAGTAAC
TTTTTATAGCAAGATGATACAATGGTATGAGTGAATCTAACTTCTTGTGGTATTACCTTGTATGCTGTTACT
TTTATTTTATTCCTTGTAATTAAGTCACAGGCAGGACCCAGTTTCCAGAGAGCAGGCGGGGCGGCCAGTGGGTC
AGGCACAGGGAGCCCCGCTCTATCTTAGAGCCCCGTAGCTTCAGGGAAGGGGCGGGCGTGTGCGCGCCTCTGGC
ATCGCTCCGGTTGCCCTTACACCACGCCTTACCTGCAGTCGCCTAGAAAACCTTGCTCTCAAACCTCAGGGTTTT
TTCTTCTTCAAAATTTGGACCAAAGTCTCATTTCTGTGTTTTTGCCTGCCTCTGATGCTGGGACCCGGAAGGCGG
GCGCTCCTCCTGTCTTCTGTGCTCTTTCTACCGCCCCGCGTCTGTCCCGGGGCTCTCTAGGATCCCCTT
TCCGTAAAAAGCGTGTAAACAAGGGTGTAATAATTTTATACCTGTTGTGAGACCCGAGGGGCGGCGGC
GCGGTTTTTTATGGTGACACAAATGTATATTTTGCTAACAGCAATTCAGGCTCAGTATTGTGACCGCGGAGCCA
CAGGGGACCCACGCACATTCCGTTGCCTTACCCGATGGCTTGTGAACGCGGAGAGAACCATTAAACCGTTTGA
GAAACTCCTCCCTTGTCTAGCCCTGTGTTGCTGTGGACGCTGTAGAGGCAGGTTGGCCAGTCTGTACCTGGACT
TCGAATAAATCTTCTGTATCCTCGCTCCGTTCCGCCTTAAAAAATAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 5103

MDGIVPDIAVGTKRGSDELFSTCVTNGPFFIMSSNSASAANGNDSKKFKGDSRSAGVPSRVIHIRKLPIDVTEGEV
ISLGLPFGKVTNLLMLKGKNQAFIEMNTEEAANTMVNYTTSVTPVLRGQPIYIQFSNHKELKTDSSPNQARAQAA
LQAVNSVQSGNLALAASAAAVDAGMAMAGQSPVLRIIVENLFYPVTLQIFSKFGTVLKIITFTKNNQFQAL
LQYADPVSAQHAKLSLDGQNIYNACCTLRIDFSKLTSLNVKYNNDKSRDYTRPDLP SGDSQPSLDQTMAAAFGAP
GIISASPYAGAGFPPTFAIPQAAGLSVPNVHGALAPLAIP SAAAAAAAAGRIAIPGLAGAGNSVLLVSNLNP
TPQSLFILFGVYGDVQVRVKILFNKKENALVQ MADGNQAQLAMSHLNHGKLGKPIRITLSKHQNVQLPREGQEDQ
GLTKDYGNSPLHRFKKPGSKNFQNIFFPSATLHLSNIPP SVSEEDLKVLFSSNGGVVKGFQKDRKMALIQMG
SVEEAVQALIDLHNHDLGENHHLRVSF SKSTI

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[illegible]

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FIGURE 5105

MKLQAVMETLLQRQQRARQELEARQQLPPDPPAAPPPGRARAAPDEDREPESARMQRAQMAALAAMRAAAAGLGHP
ASPGGSEdGPPGSEEDAAAREGTPGSPGRGREGPGEEHFEDMASDEDMKPKWEEEEEMEEDLGEDEEEEEEDYEDE
EEEEDEEGLGPPGPASLGTTALFPRKAQPPQAFRGDGVPRVLGGQERPGPGPAHPGGAHVAPQLQPPDHGDWTY
EEQFKQLYELDGDPKRKEFLDDLFSFMQKRGTVPVNRIPIMAKQVLDLFLMLYVLVTEKGGGLVEVINKKLWREITKG
LNLPTSITSAAFTLRTQYMKYLYPYECEKRGLSNPNELQAAIDSNRREGRRQSFSGSLFAYSPGGAHGM LSSPKL
PVSSLGLAASINGSSITPAPKIKKEEDSAIPITVPGRLPVSLAGHPVVAAQAAAVQAAAAQA AVAAQAAALEQLR
EKLESAEPPEKKMALVADEQQRLMQRALQQNFLAMAAQLPMSIRINSQASESRQDSAVNLTGTNGSNSISMSVEI
NGIMYTGVLFAQPPAPTPTSAPNKG GGGGGSSSNAGGRGGNTGTSGGQAGPAGLSTPSTSTSNNSLP

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FIGURE 5106

GGCAAGATGGCGGCGCCCATGGAGGTGGCCGTGTGTACGGACTCGGCGGCCCCGATGTGGAGCTGCATCGTGTGG
GAACTTCACTCGGGCGCCAACCTGCTCACCTACCGCGGCGGCCAGGCGGGACCCCGGGCCTGGCGCTGCTCAAT
GGCGAGTATCTGCTGGCGGCGCAGCTGGGCAAGAATTACATCAGCGCCTGGGAGCTCCAGCGGAAGGACCAGCTC
CAGCAGAAGATCATGTGCCCCGGGCCTGTACCTGTCTGACTGCATCACC CAATGGTCTCTACGTCTTGGCAGGA
GTTGCAGAAAGCATCCACCTGTGGGAGGTCTCCACCGGGAACCTTCTGGTCATCTGAGTCGACACTACCAGGAC
GTCTCTGCTTCA GTTACAGGGGACAGCAGCCACTTCATCTCAGGGGGCAAGGACTGCCTGGTGTGGTTTGG
AGCCTCTGCAGCGTGTGTCAGGCCGACCCCTCCAGGATTCCGGCGCCAGGCACGTCTGGTCTCACCACGCGCTC
CCCATCACGGACCTGCACTGCGGCTTTGGGGGCCCCCTGGCCCGGGTGGCCACCTCTCACTGGACCAGACGGTG
AAGCTATGGGAGGTCTCCTCGGGGGAGCTGCTGCTCTCCGTCTCTTTGACGTGTCCATCATGGCAGTGACCATG
GACCTGGCTGAGCACCATATGTTCTGCGGGGGCAGTGAGGGCTCCATCTTCCAGGTGACCTCTTACCTGGCCC
GGACAGAGGGAGAGGAGCTTCCACCCAGAGCAGGACGCCGGGAAGGTCTTCAAAGGGCACAGGAACCAGGTGACT
TGCCTGTCA GTGTCCACTGACGGCAGCGTGTGCTCTCAGGCTCCACGACGAGACCGTGCGCCTCTGGGACGTG
CAGAGCAAGCAGTGCATCCGGACGGTGGCCCTCAAAGGCCCAGTCACCAATGCCGCCATCTGCTGGCGCCCGTC
AGCATGCTGAGCTCAGACTTCAGGCCCAGCCTGCCGCTGCCCCACTTCAACAAGCACCTGCTGGGCGCCGAGCAC
GGGGACGAGCCGCGCCACGGGGGCCTCACTCTGCGCCTGGGCCTCCACCAGCAGGGCTCGGAGCCCAGCTACCTG
GACCGCACGGAGCAGCTGCAGGCCGTCTGTGTCAGCACCATGGAGAAGAGCGTGCTCGGCGGCCAGGACCAGCTG
CGCGTCCGTGTGACGGAGCTGGAGGACGAGGTGCGCAACCTGCGCAAGATCAATCGGGACCTGTTGACTTCTCC
ACGCGCTTCATCACGCGGCCGGCCAAAGTGAAGGCCCGGAGACCCCGGCCCGAGGCGCCAGGCCTGAGCCCCATGC
CTCCCAGCAACCAGGGCCCGCGGGTGTGGCCCCCACCAGCCCAGGCCTGGACTCTCCTCAGTTCTGTGTGCTGTT
CGGGTTTTTCTCTGTGACTGGGCCGTCTTGGTGTCTCGTGGCACGCGTCACAGTGGTGCTAGTCTGTTTTTAAC
AAAAGAGGATGAAAAGCC

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FIGURE 5107

MAAPMEVAVCTDSAAPMWSCIVWELHSGANLLTYRGGQAGPRGLALLNGEYLLAAQLGKNYISAWELQRKDQLQQ
KIMCPGPVTCLTASPNGLYVLAVAGVAESIHLWEVSTGNLLVILSRHYQDVSCLOFTGDSSHFISGGKDCLVLVWSL
CSVLQADPSRIPAPRHVWSHHALPITDLHCGFGGGLARVATSSLDQTVKLWEVSSGELLSSVLFVDSIMAVTMDL
AEHHMFCGGSEGSIFQVDLFTWPGQRERSFHPEQDAGKVFKGHRNQVTCLSVSTDGSVLLSGSHDETIVRLWDVQS
KQCIRTVALKGPVTNAAILLAPVSMLSSDFRPSLPLPHFNKHLPGAEGHDEPRHGGLTLRLGLHQGSEPSYLDL
TEQLQAVLCSTMEKSVLGGQDQLRVRVTELEDEVRLNRKINRDLFDLSTRFITRPAK

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FIGURE 5108

ATGAGCTCCACGCAGTTCAACAAGGGCCCCCTCGTACGGGCTGTCTGGCCGAGGTCAAGAACCGGGCTCCCGCGAAT
CTTGGGGAGCACCCAGGTCTGAGATCTGGGGGACGAGTGACCCATTCCCCCCCCAACATCTAGGGGTAGTTGGG
TCTGACTTCGTCCCCTCGCCATGGCCCCAGGACCCCCACGTGTCTTACAGCTGACTTCTGCAGGGGAAACTGCC
TCTGCACGCTCTGAGGGCACCGGCCCTGCCAGCCCCAACAGCCACCTGCCCCGGCGGCCTCCAGGGCCGGCAGAC
TGGAGGGAGAATTCTGCTTCCCCGCTGGGCCATCTGCACCCCTGCATTTCATAGAGCCCCCGTGCAGTGGGGTGG
GCACCCTGCCGCACCCTGCATACAGCCGGCTAA

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FIGURE 5109

ACCAGCTCCTGTCCAAATATGACCCCCAGAAGGAGGCAGAGCTCCGCACCTGGATCGAGGGACTCACCGGCCTCT
CCATCGGCCCCGACTTCCAGAAGGGCCTGAAGGATGGAACCTATCTTATGCACACTCATGAACAAGCTACAGCCGG
GCTCCGTCCCCAAGATCAACCGCTCCATGCAGAACTGGCACCAGCTAGAAAACCTGTCCAACCTTCATCAAGGCCA
TGGTCAGCTACGGCATGAACCTGTGGACCTGTTTCGAGGCCAACGACCTGTTTGAGAGTGGGAACATGACGCAGG
TGCAGGTGTCTCTTCTCGCCCTGGCGGGGAAGGCCAAGACTAAGGGGCTGCAGAGCGGGGTGGACATTGGCGTCA
AGTACTCGGAGAAGCAGGAGCGGAATTTTCGACGATGCCACCATGAAGGCTGGCCAGTGCCTCATCGGGCTGCAGA
TGGGCACCAACAAATGCGCCAGCCAGTCGGGCATGACTGCCTACGGCACGAGAAGGCATCTCTATGACCCCAAGA
ACCATATCCTGCCCCCATGGACCACTCGACCATCAGCCTCCAGATGGGCACGAACAAGTGTGCCAGCCAGGTGG
GCATGACGGCTCCCCGGGACCCGGCGGCACATCTATGATACCAAGCTGGGAACCGACAAGTGTGACAACCTCCTCCA
TGTCCCTGCAGATGGGCTACACGCAGGGCGCCAACCAAGAGCGGCCAGGTCTTCGGCCTGGGCCGGCAGATATATG
ACCCCAAGTACTGCCCCGAAGGCACAGTGGCCGATGGGGCTCCCTCGGGCACCGGCGACTGCCCGGACCCGGGGG
AGGTCCCTGAATATCCCCCTTACTACCAGGAGGAGGCCGGCTACTGAGGCTCCAGCACGCTCTCTCCCCACATC
GTCTGCCCATCTGGGTTTTTTGGGTTTTTCTGTGTTTTTCATCTTTTTTTTTTTTTTTCTTAACCCGTTTCAGTGCTGC
CAGTCAACCAAGGGTCTGTGAGTGTTCAGCGTGGGATCAGGCAGCAGAGCTTTTTTCCCTTTGCCTTGATCCTTC
GCAAGGCTGAGCCACTGGGCTGTGGGGGAAGGGGTCAAGGCCATATCCCAATACGTGTAGGGCGAGGGTCCCTGC
TGGCACATTCAGGCTGTGCTGGGAAGAAGAGACCTGGGCTTGGAAGGAACCGGTCCCCGACGGTTTTCTGCTTGCC
TCGCCTCTTCCCCCTTTTGTTCAGCTGAGCAGTTTGTGGTTTTCTATGCCCGCAAGTTTCAGGAAGTATTCACAAAA
GAAAAATACATTTTTTCCCCCAGGGGTGGGGCAAGGACAGTGGAGAGAGTGCTAGGAAATGAGTCCCCTGGGAAA
GGGGACCGGGCCGTGATGTTAAATATCTCCGGCTCCCAAGTGACTGGATTTGCCTAGGACCTTCAGACCAACAGA
CTTCAGACCTCAGACCTGCCCCGGGGCCAGGTGGAGAAAGTGAGGGCCGTACAAGGAAGTGAAATTTCTGAGTTG
TTGGGGCTAAGCCTGACCCCTCTCCATGCTCCCGCCCCCAACCACTCTGGCCTCAGTAGATTTTTTTTTTCAGT
TGTGGTTGTTGCCCAGGCTGGAGTGCAGTGGCGCCATCTTGCTCACTGCACCTCCACCTTCCGGGCTCAAGCGA
TTCTCCAGCCTCAGCCTCCTGAGTAGCTAGGACTGCAGGTGCTCCACCACGCCCGGCTAATTTTTGTATTTTTAG
TAGAGATGGGGTTTCCCCATGTTGGCCAGGCTGGTCTCGAACTCCTGGCCTCAGGTGTGATCCGCCCGCCTCCGC
CTCCCCAAGCGCTGAGATTACAGGTGTGAGCCACCGTGCCCAGCCCCCTCAGTAGGTTTTAAGGAGCCCCCAGCCC
TCCTCCCTTCTGGGCCCCGACCAGCTTATACTGCTCCATCTTCCCCGGCCACATGCCCCGCCAAGTACTGCACAGG
GACCCCCACCCAGGGGACCTGCTCCGTGAGATAATGTGAAATACGACTGTGGACCAACGCAATAAAACCTCTG
TTTGTACGAAG

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FIGURE 5110

GGCGGCGGCGGCGGAGGCTGCCATGGACGACGAGGAGGAGACGTACCGGCTCTGGAAAATCCGCAAGACCATCAT
GCAGCTGTGCCACGACCGTGGCTATCTGGTGACCCAGGACGAGCTTGACCAGACCCTGGAGGAGTTCAAAGCCCA
ATCTGGGGACAAGCCGAGTGAGGGGCGGCCGCGCGCACGGACCTCACCGTGCTGGTGGCCACAACGATGACCC
CACCGACCAGATGTTTGTGTTCTTTCCAGAGGAGCCCAAGGTGGGCATCAAGACCATCAAGGTGTACTGCCAGCG
CATGCAGGAGGAGAACATCACACGGGCTCTCATCGTGGTGCAGCAGGGCATGACACCCTCCGCCAAGCAGTCCCT
GGTCGACATGGCCCCAAGTACATCCTGGAGCAGTTTCTGCAGCAGGAGCTGCTCATCAACATCACGGAGCACGA
GCTAGTCCCTGAGCACGTCGTCATGACCAAGGAGGAGGTGACAGAGCTGCTGGCCCGATATAAGCTCCGAGAGAA
CCAGCTGCCCAGGATCCAGGCGGGGGACCCTGTGGCGCGCTACTTTGGGATAAAGCGTGGGCAGGTGGTGAAGAT
CATCCGGCCCAGTGAGACGGCTGGCAGGTACATCACCTACCGGCTGGTGCAGTAGCTACCGCCTGACAGCCCCTA
GAGGCGGACACACAGCGACCCCCATCCCTGCAGGACAAACGCCCCCTGCCCTGCCAGAATCCGGCCCCCACAGCTC
TCACGGCTGCTGCTCCTCTGGACTCCCCAAGGCAGGTGGCTTCCACCCACGTTCTCCCGTCTGTTGGGGTGAGGCTT
CCTGTGGCCCAGCCGCCCCATTACCTGTGGATTTGTGCGAGATGCAGCCTCAGAAGGAACAAGGCCCCCAGAG
GGAGGTCACCTGGGGGCGAGCTGGTGCCGGGTCTTACCCAGACCACGCTGGGTCCCCTCTGTTGGGGGTTTGGGG
TCCGGGTCTCCCACCAGCCACTGCTTCCCTCCGGGCCCTCGGCCCTCCACCCCTCGTCTTCCCTCCCTCGGGGGC
CCTGATGCGTGCGGCCCCCGCCCGGCTCGGCTCTTTACTCCATTACAGCCATGCACGCGCTCAAGCCACCAG
GGTGCAGATGCCAGCTCTGGAGTTCTCGGTTGTTGTAGGAGGTTGGGTGTTTTCAAATGGTAAAGATGTTTTGA
GCAAATAAATTTGCTTGATACAG

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FIGURE 5111

MDDEEETYRLWKIRKTIMQLCHDRGYLVTQDELDQTLEEFKAQSGDKPSEGRPRRTDLTVLVAHNDDPTDQMFVF
FPEEPKVGIKTIKVYCQRMQEENITRALIVVQQGMTPSAKQSLVDMAPKYILEQFLQQELLINITEHELVPEHV
MTKEEVTPELLARYKLRENQLPRIQAGDPVARYFGIKRGQVVKIIRPSETAGRYITYRLVQ

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FIGURE 5112

CGGGGAGGCGCGGAAAGCCGACGCGCGTCCATTGGTCGGCTGGACGAGGGGAGGAGCCGCTGGCTCCCAGCCCCG
CCGCGATGAGCCTCGGCCGCCCTTTGCCGCCTACTGAAGCCGGCGCTGCTCTGTGGGGCTCTGGCCGCGCCTGGCC
TGGCCGGGACCATGTGCGCGTCCCGGGACGACTGGCGCTGTGCGCGCTCCATGCACGAGTTTTCCGCCAAGGACA
TCGACGGGCACATGGTTAACCTGGACAAGTACCGGGGCTTCGTGTGCATCGTCACCAACGTGGCCTCCCAGTGAG
GCAAGACCGAAGTAACTACACTCAGCTCGTCGACCTGCACGCCCCGATACGCTGAGTGTGGTTTGC GGATCCTGG
CCTTCCCGTGTAACCAAGTTCGGGAAGCAGGAGCCAGGGAGTAACGAAGAGATCAAAGAGTTCGCCGCGGGCTACA
ACGTCAAATTCGATATGTTTCAGCAAGATCTGCGTGAACGGGGACGACGCCACCCGCTGTGGAAGTGGATGAAGA
TCCAACCCAAGGGCAAGGGCATCCTGGGAAATGCCATCAAGTGGAAC TTCACCAAGTTCCTCATCGACAAGAACG
GCTGCGTGGTGAAGCGCTACGGACCCATGGAGGAGCCCCTGGTGATAGAGAAGGACCTGCCCCACTATTTCTAGC
TCCACAAGTGTGTGGCCCCGCCCCGAGCCCCTGCCCACGCCCTTGAGCCTTCCACCGGCACTCATGACGGCCTGC
CTGCAAACTGCTGGTGGGGCAGACCCGAAAAATCCAGCGTGACCCCGCCGGAGGAAGGTCCCATGGCCTGCTGG
GCTTGGCTCGGCGCCCCCACCCTGGCTACCTTGTGGGAATAAACAGACAAATTAGAAAAAAAAAAAAAAAAA

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FIGURE 5113A

GCCCCAAACCCGGAAGTGAGCGCGGCAGCTGCGAGGCTCGGAGAAACAGGCGCCGCGGGCTCCGCGCCCGGCCG
GACCCGGGCCCCGAGATCATGATGCTGCCGCCACCGCCGCCACCACGGAGCGAGAAGCCCAGATAGACGCCCGGC
GGCCCCGGGTCTTGAGTCCCGCCGCTGCTGCCCGGCCGAGGACCCACCCCGCTGCCGCCCCGATGCTTGACG
TGGGGCCCCGCCATGGACAGGGATTACCCGCAGCATGAACCCCCGCCGGCGGGCAGCCTCCTGTACAGCCCGCCG
CCCTGCAGAGCGCCATGCTGCACTGCCCTACTGGAACACCTTCTCGCTGCCGCCATACCCTGCCTTCTCCAGCG
ACAGCCGCCCGTTTCATGAGCTCCGCTCCTTCTCGGCAGCCAGCCCTGCCAGACACCAGCTATGCCCCCGTGG
CCACCGCCTCCAGCTTGCCACCAAAGACCTGCGACTTTGCTCAGGACTCCTCCTATTTTGAGGACTTCTCCAACA
TCTCCATCTTCTCCTCGTCCGTGGACTCCCTGTGCGACATCGTGGACACGCCCCGACTTCTGCCGGCTGACAGCC
TCAACCAGGTGTCCACCATCTGGGACGATAACCTGCCCCCTCCACCCACGATAAGCTGTTCCAGCTCAGCAGGC
CGTTTGAGGCTTCGAGGACTTCTGCCCTCCACAGCACCCCGCTTCTCGTCAGCTACCAGGAGCAGAGTGTGC
AGAGCCAGCCAGAGGAGGAGGACGAGGCTGAGGAGGAGGAGCGGAGGAGCTGGGGCACACAGAGACCTACGCCG
ACTACGTGCCGTCCAAGTCCAAGATCGGGAAGCAGCACCCAGACCGCGTGGTGGAGACCAGCACACTGTCCAGCG
TCCCACCCCCAGACATCACCTACACCTTGGCCCTGCCCTCGGACAGCGGGGCCCTGTCTGCCCTGCAGCTAGAGG
CCATCACCTACGCTGCCAGCAACACGAGGTCTGTCCCCAGCGGGCAGCGCGCGGGCTTTCTCATCGGCGATG
GGGCCGGCGTGGGCAAAGGCCGGACGGTGGCCGGAGTCATCCTGGAGAACCACCTGCGCGGCCCGGAAGAAAGCAT
TGTGGTTACGCTCTCCAACGACCTCAAGTACGATGCGGAGCGCGACCTGCGGGACATCGAAGCCACGGGCATCG
CGGTGCACGCGCTCAGCAAGATCAAGTACGGTGACACCACTACCTCAGAGGGCGTCTCTTCGCCACCTACTCCG
CCCTGATTGGGGAGAGCCAGGCCGGCGGCCAGCACCGCACTCGCCTCCGGCAGATCCTGGACTGGTGTGGGGAGG
CCTTCGAGGGCGTCATCGTGTTCGACGAGTGTCAAAAGCCAAGAATGCCGGCTCCACCAAGATGGGCAAGGCTG
TGCTAGACCTGCAGAACAAGCTGCCCCTGGCCCGCGTGGTCTACGCCAGCGCCACAGGTGCCTCTGAGCCTCGGA
ACATGATCTACATGAGCCGCTTGGGTATCTGGGGCGAGGGCACACCCCTCCGGAACTTTGAGGAGTTCTGCACG
CCATCGAGAAGAGGGGCGTTGGCGCCATGGAGATCGTGGCCATGGACATGAAGGTCAGCGGCATGTACATCGCAC
GCCAGCTCAGCTTCTCCGGCGTCACCTTCCGCATCGAGGAGATCCCGCTGGCCCCAGCCTTCGAGTGCCTTACA
ACCGCGCGGCCCTGCTGTGGGCCGAGGCCCTGAACGTGTTCAGCAGGCGGCCGACTGGATCGGCCTGGAGTCGC
GCAAGTCCCTGTGGGGCCAGTTCTGGTGGCACACCAGCGCTTCTTCAAGTATCTGTGCATCGCAGCCAAGGTGC
GCCGGCTGGTGGAGCTGGCCCGAGAGGAGCTGGCGCGAGACAAGTGGTGGTTCATCGGGCTGCAGTCCACGGGCG
AGGCGCGCACGCGGGAGGTGCTGGGGGAGAACGATGGGCACCTCAACTGCTTCGTCTCGGCCGCTGAAGGCGTGT
TCTGTCTGCTAATTCAAGCACTTTCGGTCCACCAAGAGAAAGCGGGACAGAGGAGCGGGCAGCAAGCGGAAAC
GGCGACCTCGGGGACGCGGGGCCAAAGCCCCCGGCTGGCGTGCGAGACAGCGGGCGTCATCCGCATCAGTGACG
ACAGCAGCACGGAGTCGGACCCTGGCTGGACAGCGACTTCAACTCCTCCCCGAGTCCCTGGTGGATGACGACG
TTGTCTATCGTTGATGCAGTCGGGCTCCCCAGTGACGACCGGGGACCCCTGTGCTCCTGCAGAGAGACCCGCATG
GCCCCGGGGTCTGGAGCGGTGGAGCGGCTGAAGCAGGATCTGCTGACAAAGTGGCGCGGCTGGGCCGGGAAC
TGCCAGTCAACACCTGGACGAGCTATCGACAGCTGGGCGGCCCCAGCGGGTGGCGGAGATGACCGGCAGGA
AAGGCCGCGTGGTGTCCAGGCCGACGGGACGGTGGCCTTCGAGTCGCGGGCAGAGCAGGGTCTGTCCATCGACC
ACGTGAACCTCAGGGAGAAGCAGCGCTTCATGAGCGGCGAGAAGCTCGTGGCCATCATCTCGGAGGCCTCCAGCT
CGGGTGTCTCCCTCCAAGCCGACCGCCGTGTCAGAACCAGCGGCGCCGCTGCACATGACCTTGGAGCTGCCGT
GGAGCGCCGACCGCGCCATCCAGCAGTTCGGCCGCACCCACCGGTCCAACCAGGTCTCCGCGCCAGAGTATGTCT
TCTCATCTCGGAGCTGGCCGGGGAGCGCCGTTTCGCTCCATCGTGGCCAAGCGCCTGGAGAGTCTGGGGGCC
TGACCCACGGAGACCGCCGCGCCACGGAGTCCCGTGACCTCAGCAAGTACAACCTTGAGAACAAGTATGGCACC
GGGCCCTGCACTGTGTCTCACCACCATCTGAGCCAGACTGAGAACAAGTGCTGTGCCCCAGGGATACCTG
GAGGGGTCCCCACCTTCTTCCGGGACATGAAGCAGGGCCTGCTGTCTGTGGGCATTGGTGGCCGGGAGTCCCGGA
ATGGCTGCCGTGGAGCTGGAGAAGGACTGTTCCATCACCAAGTTCCTGAACCGCATCCTGGGGCTGGAGGTGCACA
AGCAGAACGCCCTGTTCCAGTACTTCTCAGACACCTTCGACCACCTCATCGAGATGGACAAGCGGGAGGGCAAAT
ACGACATGGGCATCCTGGACCTTGCTCCCGGTATCGAGGAGATCTACGAGGAGAGCCAGCAGGTGTTCTGGCTC
CCGGGCACCCGCAGGACGGGCAGGTGGTCTTCTACAAGATCAGCGTGGACCGCGGCCCTGAAGTGGGAGGACGCT
TTGCCAAGTCGCTGGCGCTGACGGGCCCTATGACGGCTTCTACCTCTCTTACAAGGTCCGCGGTAACAAGCCCA
GCTGCCTGCTGGCGGAGCAGAACCAGCGGCCAGTTCTTACGGTGTACAAGCCCAACATCGGCCGGCAGAGCCAGC
TGGAGGCCCTGGACAGCCTCCGCCGCAAGTTCACCGGGTCACCGCGGAGGAGGCCAAGGAGCCCTGGGAGAGTG

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FIGURE 5113B

GCTACGCTTTGTGCTGACGCACTGCAGCCACAGCGCCTGGAACCGGCACTGCCGGCTGGCGCAGGAGGGTAAGG
ACTGCCTGCAGGGGCTGCGGCTGCGGCACCACTACATGCTGTGCGGCGCGCTGCTGCGCGTGTGGGGCCGCATCG
CCGCCGTGATGGCCGACGTGAGCAGCAGCAGCTACCTGCAGATCGTGCGGCTGAAGACCAAGGACAGGAAGAAGC
AAGTGGGCATCAAGATCCCCGAGGGCTGCGTGCGCCGGGTGCTGCAGGAGCTGCGGCTGATGGATGCGGACGTGA
AGCGCAGGCAGGCGCCCGCCCTGGGCTGCCCCGCCCCGCCCCGCCCCGCGCCCGCTGGCGCTGCCTTGCGGCCCCG
GAGAGGTGCTGGACCTACCTACAGCCCCCGGCCGAGGCCTTCCCGCGCCCCCGCACTTCTCTTTCCCGGCGC
CGCTGTCCCTGGACGCCGGCCCCGGCGTCGTGCCGCTGGGCACCCCCGACGCCCAGGCCGACCCTGCGGCCCTCG
CGCACCAGGGCTGCGACATCAACTTCAAGGAGGTGCTGGAGGACATGCTGCGCTCGCTGCACGCGGGGCCGCCCT
CCGAGGGCGCGCTGGGGGAGGGCGCGGGGGCGGGGGGCGCGGGCGGGCGGTGGTCCCAGCGGCAGAGCGTGATCC
AGTTCAGCCCACCCTTCCCCGGCGCCAGGCTCCTCTCTGACACGCCTTTAGGCGAAACATGCCCAAGACACAG
GGACCGTTTCTCCCTAGGAGCAGCGGTGGGGAGCAGGGCCAAGGTCCCCTGACCACTGCTCAGAGGAGCCCTAG
GCCCTGGCCGCAGTGCCCTTACGCGCCCGACCCGGGCCCCCACCTGGTCAGCCCTGGCGGGGCCCACTCAGGACAG
CTGGGGGCGGGGCGTGGCAGGGCCCTCTCTGTGCTCTCCTCCCAAGTAGGAAGGGGCTCCGGGTGGCTGCTCT
GGGACTGGGCACCCACAAGGGCTCAGTGGGCCCCAAACCTTGAATCCGTGAAACCGGGTGGTCCCAAGAGCTAG
AAACTCAGGAAACCCAGGTGCTCAGGGCCCCGCGTCTCGGGGGCTCCGTGGGGCAGACCCCTGCTAATATATGC
AATTCTCCCTCCCCAGCCCTTCCCTGACCCCTAAGTTATTGCCCGCTCACCTCTCCAGGCCCCAGGCCGCGGA
GCTGGCAGGGTGGCGCCTGCGGTTTCTATGTATTTATAGCAAGTTCTGATGTACATATGTAAAGGACTTTTTTAA
AT

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FIGURE 5114

CCCAGGGTCCCCGAGGACGAAGTTGACCCTGACCGGGCCGTCTCCAGTTCTGAGGCCCGGGTCCCCTGGAAC
CGCGTCTGAGCCGCCGTCCCGGACCCCGGTGCCCGCCGTCCGCAGACCCTGCACCGGGCTTGGACTCGCAGCC
GGGACTGACGTGTAGAACAATCGTTTCTGTTGGAAGAAGGGTTTTCCCTTCCTTTTGGGGTTTTTGTTCCTTT
TTTTTTTCTTTTTTCTTTGTAAATTTTGGAGAAGGAAGTCGGAACACAAGGAAGGACCGCTCACCCGCGGACT
CAGGGCTGGCGGCGGGACTCCAGGACCCTGGGTCCAGCATGGAGGTGGTGGACCCGCAGCAGCTGGGCATGTTCA
CGGAGGGCGAGCTGATGTCGGTGGGTATGGACACGTTTCATCCACCGCATCGACTCCACCGAGGTCATCTACCAGC
CGCGCCGCAAGCGGGCCAAGCTCATCGGCAAGTACCTGATGGGGGACCTGCTGGGGGAAGGCTCTTACGGCAAGG
TGAAGGAGGTGCTGGACTCGGAGACGCTGTGCAGGAGGGCCGTCAAGATCCTCAAGAAGAAGAAGTTGCGAAGGA
TCCCCAACGGGGAGGCCAACGTGAAGAAGGAAATCAACTACTGAGGAGGTTACGGCACAATAATGTCATCCAGC
TGGTGGATGTGTTATACAACGAAGAGAAGCAGAAAATATATATGGTGATGGAGTACTGCGTGTGTGGCATGCAGG
AAATGCTGGACAGCGTGCCGGAGAAGCGTTTCCAGTGTCAGGCCCCACGGGTACTTCTGTCAGCTGATTGACG
GCCITGGAGTACCTGCATAGCCAGGGCATTGTGCACAAGGACATCAAGCCGGGGAACCTGCTGCTCACCACCGGTG
GCACCCCTCAAAATCTCCGACCTGGGCGTGGCCGAGGCACTGCACCCGTTTCGCGGCGGACGACACCTGCCGGACCA
GCCAGGGCTCCCCGGCTTTCCAGCCGCCCCGAGATTGCCAACGGCCTGGACACCTTCTCCGGCTTCAAGGTGGACA
TCTGGTTCGGCTGGGGTCACCCCTTACAACATCACCACGGGTCTGTACCCCTTCGAAGGGGACAACATCTACAAGT
TGTTTGAGAACATCGGGAAGGGGAGCTACGCCATCCCGGGCGACTGTGGCCCCCGCTCTCTGACCTGCTGAAAG
GGATGCTTGAGTACGAACCGGCCAAGAGGTTCTCCATCCGGCAGATCCGGCAGCACAGCTGGTTCCGGAAGAAAC
ATCCTCCGGCTGAAGCACCAGTGCCCATCCACCGAGCCAGACACCAAGGACCGGTGGCGCAGCATGACTGTGG
TGCCGTACTTGGAGGACCTGCACGGCGCGGACGAGGACGAGGACCTCTTCGACATCGAGGATGACATCATCTACA
CTCAGGACTTCACGGTGCCCGGACAGGTCCCAGAAGAGGAGGCCAGTCACAATGGACAGCGCCGGGGCCCTCCCA
AGGCCGTGTGTATGAACGGCACAGAGGCGGCGCAGCTGAGCACCAAAATCCAGGGCGGAGGGCCGGGGCCCCAAC
CTGCCCGCAAGGCCGTGCTCCGCCAGCAGCAAGATCCGCCGGCTGTCGGCCTGCAAGCAGCAGTGAGGCTGGCCGC
CTGCAGCCCGTGTCCAGGAGCCCCGCCAGGTGCCCGCGCCAGGCCCTCAGTCTTCCTGCCGGTTCCGCCCGCCCT
CCCGGAGAGGTGGCCGCCATGCTTCTGTGCCGACCACGCCCCAGGACCTCCGGAGCGCCCTGCAGGGCCGGGACG
GGGGACAGCAGGGACCGGGCGCAGCCCTCCCCCTCGGCCGCCCGGCAGTGCACGCGGCTTGTGACTTCGCAGC
CCCGGGCGGAGCCTTCCCGGGCGGGCGTGGGAGGAGGGAGGCGGCCTCCATGCACTTTATGTGGAGACTACTGGC
CCCGCCCGTGGCCTCGTGTCCGCAGGGCGCCAGCGCCGTCCGGCGGCCCCGCCGACAGCAGCTGGCGGGTGT
GGAGACCAGGCTCTGACCCCGCATGTCATGCAGCGCCACCTGGAAGCCGCGCGGCGCTTTGGTTTTTTGTTTG
GTTGTTTCATTTTCTTTTTTCTTTTTTTTTTAAGAAAAAATAAAAGGTGGATTG

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FIGURE 5115

GTCTCCTCGCCCTCCAGGCCGCCCGCGCCGCGCCGGAGTCCGCTGTCCGCCAGCTACCCGCTTCCTGCCGCCCG
CCGCTGCCATGCTGCCCCGCCGCGCTGCTCCGCCGCCCGGGACTTGGCCGCTCGTCCGCCACGCCCGTGCTATG
CCGAGGCCGCCGCCGCCCGGCTGCCGCTCTGGCCCCAACCAGATGTCCTTCACCTTCGCTCTCCACGCAGG
TGTTCTTCAACGGTGCCAACGTCCGGCAGGTGGACGTGCCACGCTGACCGGAGCCTTCGGCATCCTGGCGGCC
ACGTGCCACGCTGCAGGTCTGCGGCCGGGGCTGGTCTGGTGCATGCAGAGGACGGCACCACTCCAAATACT
TTGTGAGCAGCGTTCCATCGCAGTGAACGCCGACTCTTCGGTGCAGTTGTTGGCCGAAGAGGCCGTGACGCTGG
ACATGTTGGACCTGGGGGCAGCCAAGGCAAAC TTGGAGAAGGCCCAGGCGGAGCTGGTGGGGACAGCTGACGAGG
CCACGCGGGCAGAGATCCAGATCCGAATCGAGGCCAACGAGGCCCTGGTGAAGGCCCTGGAGTAGGCGGTGCGTA
CCCGGTGTCCCGAGGCCCGGCCAGGGGTGGGCAGGGATGCCAGGTGGGCCCAGCCAGCTCCTGGGGTCCCGGCC
ACCTGGGGAAGCCGCGCTGCCAAGGAGGCCACCAGAGGGCAGTGCAGGCTTCTGCCTGGGCCCCAGGCCCTGCC
TGTGTTGAAAGCTCTGGGGACTGGGCCAGGGAAGCTCCTCCTCAGCTTTGAGCTGTGGCTGCCACCCATGGGGCT
CTCCTTCCGCTCTCAAGATCCCCCAGCCTGACGGGCCGCTTACCATCCCCCTCTGCCCTGCAGAGCCAGCCGCC
AAGGTTGACCTCAGCTTCGGAGCCACCTCTGGATGAACTGCCCCCAGCCCCGCCCATTAAGACCCGGAAGCC
TGAAAAAAAAAAAAAAAAA

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FIGURE 5116

MLPAALLRRPGLGRLVRHARAYAEAAAAPAAASGPNQMSFTFASPTQVFFNGANVRQVDVPTLTGAFGILAAHVP
TLQVLRPGLVVVHAEDGTTSKYFVSSGSIAVNADSSVQLLAEAVTLDMLDLGAAKANLEKAQAEELVGTADEATR
AEIQIRIEANEALVKALE

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[illegible]

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FIGURE 5118

MSLAIHSTTGTRYDLAVPPDETVEGLRKRLSQRLKVPKERLALLHKDTRLSSGKLQEFVGDGSKLTLVPTVEAG
LMSQASRPEQSVMQALESLTETQPPAAPGPGRAGGGGFRKYRFILFKRPWHRQGPQSPERGGERPQVSDFLSGRS
PLTLALRVGDHMMFVQLQLAAQHAPLQHRHVLAAAAAAAAAARGDPSIASPVSSPCRVPSSAARVPPVPTSPSPAS
PSPITAGSFRSHAASTTCPEQMDCSPTASSSASPGASTTSTPGASPAPRSRKPGAVIESFVNHAPGVFSGTFSGT
LHPNCQDSSGRPRRDIGTILQILNDLLSATRHYQGMPPSLAQLRCHAQCSPASPAPDLAPRTTSCEKLTAAPSAS
LLQGQSQIRMCKPPGDRLRQTENRATRCKVERLQLLLQQKRLRRKARRDARGPYHWSPSRKAGRSDSSSSGGGGS
PSEASGLGLDFEDSVWKPEVNPDIKSEFVVA

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FIGURE 5119

GAGGCTCGGGTCGTTGTGGTGCGCTGTCTTCCCGCTGCGTCAGGGACCTGCCCGACTCAGTGGCCGCCATGGCA
TCAGATGAAGGCAAACCTTTTTGTTGGAGGGCTGAGTTTTGACACCAATGAGCAGTCGCTGGAGCAGGTCTTCTCA
AAGTACGGACAGATCTCTGAAGTGGTGGTTGTGAAAGACAGGGAGACCCAGAGATCTCGGGGATTTGGGTTTGTC
ACCTTTGAGAACATTGACGACGCTAAGGATGCCATGATGGCCATGAATGGGAAGTCTGTAGATGGACGGCAGATC
CGAGTAGACCAGGCAGGCAAGTCGTCAGACAACCGATCCCGTGGGTACCGTGGTGGCTCTGCCGGGGGCCGGGGC
TTCTTCCGTGGGGGCCGAGGACGGGGCCGTGGGTTCTCTAGAGGAGGAGGGGACCGAGGCTATGGGGGAACCGG
TTCGAGTCCAGGAGTGGGGGCTACGGAGGCTCCAGAGACTACTATAGCAGCCGGAGTCAGAGTGGTGGCTACAGT
GACCGGAGCTCGGGCGGGTCCTACAGAGACAGTTATGACAGTTACGCTACACACAACGAGTAAAAACCTTCCTG
CTCAAGATCGTCCTTCCAATGGCTGTGTGTTTAAAGATTGTGGGAGCTTCGCTGAACGTTAATGTGTAGTAAATG
CACCTCCTTGTTATTTCCACTTTTCGTAGTCATTTTCGGTTCGTATCTGTCAAACCCAGCCTGACCGCTTCTGACGC
CGGGATGGCCTCGTTACTAGACTTTTTCTTTTTTAAGGAAGTGCTGTTTTTTTTTGAGGGTTTTCAAACATTTTGA
AAAGCATTTACTTTTTTGACCACGAGCCATGAGTTTTCAAAAAATCGGGGGTTGTGTGGGTTTTTGGTTTTTGT
TTTAGTTTTTGGTTGCGTTGCCTTTTTTTTTTTAGTGGGGTTGGCCCATGAAGTGGGTGCCCCACTCACTTCTC
TGAGATCGAACGGACTGTGAATCCGCTCTTTGTCGGAAGCTGAGCAAGCTGTGGCTTTTTTCCAACCTCCGTGTGA
CGTTTCTGAGTGTAGTGTGGTAGGACCCCGCGGGTGTGGCAGCAACTGCCCTGGAGCCCCAGCCCCCTGCGTCCA
TCTGTGCTGTGCGCCCCACAGTAGACGTGCAGACGTCCCTGAGAGGTTCTTGAAGATGTTTATTTATATTGTCCT
TTTTTACTGGAAGACGTACGCATACTCCATCGATGTTGTATTTGCAGTGGCTGAGGAATTCTTGTACGCAGTTTT
CTTTGGCTTTACGAAGCCGATTAAGACCGTGTGAAATG

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FIGURE 5120

CCAAGATGGCGGTGCTGTCAGCTCCTGGCCTGCGCGGCTTCCGGATCCTTGGTCTGCGCTCCAGCGTGGGCCCCGG
CTGTGCAGGCACGAGGTGTCCATCAGAGCGTGGCCACCGATGGCCCAAGCAGCACCCAGCCTGCCCTGCCAAAGG
CCAGAGCCGTGGCTCCCAAACCCAGCAGCCGGGGCGAGTATGTGGTGGCCAAGCTGGATGACCTCGTCAACTGGG
CCCGCCGGAGTTCTCTGTGGCCCATGACCTTCGGCCTGGCCTGCTGCGCCGTGGAGATGATGCACATGGCAGCAC
CCCGCTACGACATGGACCGCTTTGGCGTGGTCTTCCGCGCCAGCCCGCGCCAGTCCGACGTATGATCGTGGCCG
GCACACTCACCAACAAGATGGCCCCAGCGCTTCGCAAGGTCTACGACCAGATGCCGGAGCCGCGCTACGTGGTCT
CCATGGGGAGCTGCGCCAACGGAGGAGGCTACTACCACTATTCTACTCGGTGGTGAGGGGCTGCGACCGCATCG
TGCCCGTGGACATCTACATCCCAGGCTGCCCACCTACGGCCGAGGCCCTGCTCTACGGCATCCTGCAGCTGCAGA
GGAAGATCAAGCGGGAGCGGAGGCTGCAGATCTGGTACCGCAGGTAGCGCCGCCGCCGCCGCCGCCGGAGCCTGT
CGCCGTCTGTCCCCAGCCTGCTTGTGTCCCGTGAGGTTGTCAATAAACCTGCCCTCGGGCTGCCGCCAAAAAA
AA

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FIGURE 5121

MAVLSAPGLRGFRILGLRSSVGPVQARGVHQSVATDGPSSSQPALPKARAVAPKPSSRGEYVVAKLDDLNVWAR
RSSLPMTFGLACCAVEMMHMAAPRYDMDRFGVVFRASPRQSDVMIVAGTLTNKMAPALRKVYDQMPEPRYVVSM
GSCANGGGYYHYSYSVVRGCDRIVPVDIYIPGCPPTAEALLYGILQLQRKIKRERRLQIWYRR

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FIGURE 5122

CCCCGGCCCAAGCCCCCTGCAGGGAGCGGGCCCGGGCGGCGCGATCGAGGTCGGGTGCGCGTCCAGCCTGCA
GCATGAGCGCCCCCAGCGCGACCCCCATCTTCGCGCCCGGCGAGAACTGCAGCCCCGCGTGGGGGGCGGCGCCG
CGGCCTACGACGCAGCGGACACGCACCTGCGCATCCTGGGCAAGCCGGTGATGGAGCGCTGGGAGACCCCTATA
TGCACGCGCTGGCCGCCGCCCTCCTCCAAAGGGGGCCGGGTCTGGAGGTGGGCTTTGGCATGGCCATCGCAG
CGTCAAAGGTGCAGGAGGCGCCCATTTGATGAGCATTGGATCATCGAGTGCAATGACGGCGTCTTCAGCGGCTCC
GGGACTGGGCCCCACGGCAGACACACAAGGTCATCCCCTTGAAAGGCCTGTGGGAGGATGTGGCACCCACCCTGC
CTGACGGTCACTTTGATGGGATCCTGTACGACACGTACCCACTCTCGGAGGAGACCTGGCACACACACCAGTTCA
ACTTCATCAAGAACCACGCCTTTCGCCTGCTGAAGCCGGGGGGCGTCTCACCTACTGCAACCTCACCTCCTGGG
GGGAGCTGATGAAGTCCAAGTACTCAGACATCACCATCATGTTTGAGGAGACGCAGGTGCCCGCGCTGCTGGAGG
CCGGCTTCCGGAGGGAGAACATCCGTACGGAGGTGATGGCGCTGGTCCCACCGGCCGACTGCCGCTACTACGCCT
TCCCACAGATGATCAGCCCCCTGGTGACCAAAGGCTGAGCCCCCACCCCGGCCCGGCCACACCCATGCCCTCCTC
CGTGCCTTCCTGGCCGGGAGTCCAGGGTGTCGACCCAGCCCTGGGCTGATCCCAGCTGTGTGTACACCAGAAGCTT
TCCCGGCTTCTCTGTGAGGGGTCCCACCAGCCCAGGGCTGATCCCAGCTGTGTGTACACCAGCAGCTTTCCCAGCT
TCTCTGTGAGGGTCACTGCTGCCCACTGCAGGGTCCCTGAGGTGAAGTAAACGCCGGCGCTGGGCTTGGCCAGTC
GGCAGTGAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 5123

MSAPSATPIFAPGENCSPAWGAAPAAYDAADTHLRILGKPVMERWETPYMHALAAAASSKGGRVLEVFGMAIAA
SKVQEAPIDEHWIIECNDGVFQRLRDWAPRQTHKVIPLKGLWEDVAPTLPDGHFDGILYDTYPLSEETWHTHQFN
FIKNHAFRLKPGGVLTTCNLTSWGELMKSYSIDITIMFEETQVPALLEAGFRRENIRTEVMALVPPADCRYAF
PQMITPLVTKG

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FIGURE 5124

CCCCGGCCCCACAAGCCCCCTGCAGGGAGCGGGCCCCGGGCGGCGCGGATCGAGGTCGGGTGCGCGTCCAGCCTGCA
GCATGAGCGCCCCCAGCGCGACCCCCATCTTCGCGCCCCGGCGAGAACTGCAGCCCCGCGTGGGGGGCGGGCGCCCG
CGGCTACGACGCGAGCGGACACGCACCTGCGCATCCTGGGCAAGCCGGTGATGGAGCGCTGGGAGACCCCTATA
TGCACGCGCTGGCCGCCGCCCTCCTCCAAAGGGGGCGGGTCTGGAGGTGGGCTTTGGCATGGCCATCGCAG
CGTCAAAGGTGCAGGAGGCGCCCATTTGATGAGCATTGGATCATCGAGTGCAATGACGGCGTCTTCCAGCGGCTCC
GGGACTGGGCCCCACGGCAGACACACAAGGTCATCCCCCTTGAAAGGCCTGTGGGAGGATGTGGCACCCACCCTGC
CTGACGGTCACTTTGATGGGATCCTGTACGACACGTACCCACTCTCGGAGGAGACCTGGCACACACACCAGTTCA
ACTTCATCAAGAACCACGCCTTTTCGCCTGCTGAAGCCGGGGGGCGTCCTCACCTACTGCAACCTCACCTCCTGGG
GGGAGCTGATGAAGTCCAAGTACTCAGACATCACCATCATGTTTGAGGTGCGCCACCTGAAGTTCCCCATGGGT
CTCCAGGAAGTGACCTTGGATGGGGGTGGGAAGGGGCTGCTGGAGCCACCTTGCTACCTGGGGAGGGTCCCTTCC
TGACCCCCCTGGGTGGGCTGGACTGTGCTGGTTTCAATTTAGAAATCAAAGTCCTTTGCCTGGCGCAGTGGCTGCCAG
GAGCAGTGGCTCAGGTCTATAATCCCAGCACTGTGGAAGGCCGAGGTGGGCAGATTGCTTGAGCCTAGGAGTTCA
AGACCAGCCTGGGCTACAGAGCAAGACCTCATCTTTCTTAAAAAATAACAAAAA

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FIGURE 5125

MSAPSATPIFAPGENCSPA WGAAPAAYDAADTHLRILGKPVMERWETPYMHALAAAASSKGGRVLEVGFMAIAA
SKVQEAPIDEHWIIECNDGVFQRLRDWAPRQTHKVIPLKGLWEDVAPTLPDGHFDGILYDTYPLSEETWHTHQFN
FIKNHAFRLKPGGVLTYCNLT SWGELMKS KYS DITIMFEVRPPEVPHGSPGSDLGWGWEGAAGATLLPGEGPFL
TPWVGWTVLVHLEIKVLCLAQWLP GAVAQVYNPSTVEGRGGQIA

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FIGURE 5126

CTGCGCAGGCGCGGACCAAAGCGATCTCTTCTGAGGATCCGGCAAGATGGCGAGAAGTAGAGCAGAAGAAGAAGCG
GACCTTCCGCAAGTTCACCTACCGCGGCGTGGACCTCGACCAGCTGCTGGACATGTCCTACGAGCAGCTGATGCA
GCTGTACAGTGCGCGCCAGCGGCGGCGGCTGAACCGGGGCTGCGGCGGAAGCAGCACTCCCTGCTGAAGCGCCT
GCGCAAGGCCAAGAAGGAGGCGCGCCCATGGAGAAGCCGGAAGTGGTGAAGACGCACCTGCGGGACATGATCAT
CCTACCCGAGATGGTGGGCAGCATGGTGGGCGTCTACAACGGCAAGACCTTCAACCAGGTGGAGATCAAGCCCGA
GATGATCGGCCACTACCTGGGCGAGTTCTCCATCACCTACAAGCCGTAAGCATGGCCGGCCCGGCATCGGGGC
CACCCACTCCTCCCGCTTCATCCCTCTCAAGTAATAATGGCTCAGCTAATAAAGGCGCACATGACTCC

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FIGURE 5127

MAEVEQKKKRTFRKFTYRGVDLDQLLDMSYEQLMQLYSARQRRRLNRGLRRKQHSLLKRLRKAKKEAPPMEKPEV
VKTHLRDMIILPEMVGSMVGVYNGKTFNQVEIKPEMIGHYLGFEFSITYKPVKHGRPGIGATHSSRFIPLK

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FIGURE 5128

AGCATGCAGTTCGGTCACCTGAGGGTGCTGGGGCCGTGGTTTGAGCTTCATGGGCTCAGGTCCATGGCCGTTGAG
TGTGGCGAAACTGAGGCACGCTGTGCGGGGGACGGGGGGCGCTCACAGAAGGTAGGGGGCCTCCTGTGCCTTCAT
CCAGGCACTGCCCCGGCCTTTCCACCCCTGTTGCTAAAGCAGGTGATGACAGAGGTGATTTGATCAGCCCAGACCC
GTGCGGCACGTGGAGCCTTCGTCCGTGGGAGACCACACTGCCGAGGGGCAGGCCAGAGCCGAGGGGGCCCTGACG
CTTCTCTGAGTGACCCTGAAGTCGGTGCTGCTTCAGCCCTGCTGCACTGGGCTTGCAATCGTGGGGGAGCAGGGA
GCCATACGTAGTTTTCTGCTGAATGTGGGAGTCACCAGGACGTCAATGCCACCTCTCACCTTCGCCACCCCTGCC
TCCCTAAGTGTGTGCTCCAGGAGGTTGCACGGCCCTGGAGAGGTTTTCGGTGGCGGGCTTGTTCGTCTCTGGC
TTCCAGAGACAGCAGGAATGAGAGCCAGGCCAGCTCAGTGGAGTCCATCCCGGTGGGTGCCACGGCTTTTGCAGG
AATGGAAGCCCCGCCCCCAGGAGGGCCACTGCTGGCGAGGCTTGAGCTCTTCTGTGACCCGATCCCCCTGGTCA
CACGCTTTGTAAAGCGGGTAGCCTAGAGCTGGAAGCCCTCTGCCACCCAGCCACTGTGCCTCTCCCAGCTGA
TGGACGAGGAAGCCTCCATTACTTGATTTTTGTTTTTATTTATTTTGTAGACAGGGTCTCATTCTGTACCCAGG
CTGGAGTACCGTGGCAGCATCATAGCTTATTGCAGCCTCGGCCCTCCAGTCTCAAGCGATCCTCCTGCCTCTGCC
TCCAGAGAAGTAGGGACCACAGATGCGTGCTACCACGCCCAGCTAATTTTGTATTTGTATTTTGGTAGAGAT
GGGGGTGTCACTATGTTGTCCAGGCTGGTCTCTAACTCTTGGGCTCAAGTGTTCCCTCCCGCCTCGGCCCTCCAAA
GTGCTGGATTACAGGCGTGAGCCACCACACCTGGCTGCATCCGTCATGTTAAGAAGACCCCCGGCTGGCAAGCTCA
CTCGGGGACTGCAGGGAACCCCTGCCCTTTGGGGGCAGTAGTGAGGGGTGCCAGGAGGATGGGGTGGTCAGCAGG
CAGTGATGCTGCTGTGTCTGCTCAGACCCCCCAGTTCCCTTCAGGATGATGGAGGATGCGGAGGCCCCGGGAG
AGCAGCTCTACCAGCAAAGCCGGGCCCTACGTGGCTGCCAACCAGCGGCTGCAGCAGGCGGGCAACGTGCTGAGGC
AGAGGTGTGAGCTCCTGCAGCGAGCCGGCGAGGACCTGGAGCGGGAGGTGGCCAGATGAAGCAGGCAGCATTAC
CGGCAGCCGAGGCTGCCCTCCTCAGGCTGACCTCTCGGGGCTGCAGGCTTGGGCAGCGCACAAAGGTGGCCTGCAC
CCAGGCTTTCCCTGGGGGTCCGTCCGCCCCAGACTGGCATTACAGGGGTCCCAGCCCCAGTGGGTGTTGACACAG
GCGCCCCCTCCTGATGCTGGGGCTGCGGTTTCATCCGTCGTCTCATTTCATGCCGAGTTGGTGGGACCCACCCAGCTG
GCTCCGTCCGTGCGTGACCTGAGGGCCCCACTGGGGTCTGGAAGAGGATAGGGACATTATTGCTGTACTGTGATT
CTGTCTGTCAGCTCACAGTGGCCGTGCTCTGCACTGGGGCCCCCTGGGAGCAGGTGCCACCTCCTTCTCTCCCGGG
GCAGGCACTCGCCTGTCCACTTCTGAGTCCAGGTGTTGGGATCGAGGTGTTAACTGTGATTCCATCCAGCGAGTG
CCCACCCAATGTCAGAGCAGCCCGAGGGCCAGCCTGAGCCCCCTGACCCCACTTCTTCTGGGCCCCGGGCTCCTC
CCACAAGCCACGTTGATCTTCACAACGACCCCTGGGCCGCTGGGGTCAACCAAGAGAAGCAGCCCTGAGACCCAGC
CAGGCTGGGCCTAGCTCCACGGCACGGGTGTCTCCAGCCACTGCCCTTGCTGGAGGACCGCTGTGAGTCACTGG
CCAGGAGCCCAGGGTGTCTGAGTCTCATAGCCACCCCTGCCAGCTGCAGCAGGTCTGGGCCTGCTTCCCTGCGG
GTTCTGGCCCTGGGGGAGGGGGCGTTAGTGCGGCGGAGGGTCTTGCCAAAGGCTTTTCATCCTAAATAGCAACTT
GAGTGGAAACCTGGGCAAGGCGGCCAGAGGCTGGGCCCTGCACATAAAGCTTTTCGTGTGTGTC

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FIGURE 5129

MGSKAKKRVLLPTRPAPPTVEQILEDVRGAPAEDPVFTILAPEDPPVPFRMMDAEAPGEQLYQQSRAYVAANQR
LQQAGNVLRQRCELLQRAGEDLEREVAQMKQAALPAEEAASSG

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FIGURE 5130

CGCGGGGAAACTGAGGCAGAGAGATGGGCTCCAAGGCAAAGAAGCGCGTGCTGCTGCCCCACCGCCCAGCGCCCC
CCACGGTGGAGCAGATCCTGGAGGATGTGCGGGGTGCGCCGGCAGAGGATCCAGTGTTACCATCCTGGCCCCGG
AAGGTAGGGGGAGCCCCGGTCCCGGGGAAAAGCGGACCTGAGACCCCGGCAGCAAGGGGACGGGAGAGAAGCACAC
CCCTAACTCCTGACCCACGCCCTGGGAACCCCGCAACATGGGCACGGTCCGTATCCTCTCCGAGTCTCCCTCT
ACTCCTCCGTAGAGTGGGACCGATTTTCAGAGGGTTCTTCTGACAGGGGTGGAGGCCGGGCGCTGTGGTTCAGGC
CTGTAAGCCCAGCACTTTCGGAGGATGAGGCGGGAGGATCGCTTGAGCCCAGGAGTTCGAGACCAGCCTGGCCAA
CATGGTGAAACCCCGTCTCTGCTAAAAATGAAAAACAAAAAC

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FIGURE 5131

GCGGGCCGAGGAGCCGGGCGCAATGGAGCGGAAGAGGTGGGAGTGCCCGGCGCTCCCGCAGGGCTGGGAGAGGGA
AGAAGTGCCCAAGAGGTGCGGGCTGTCGGCCGGCCACAGGGATGTCTTTACTATAGCCCGAGCGGGAAGAAGTT
CCGCAGCAAGCCGCAGCTGGCGCGCTACCTGGGCGGCTCCATGGACCTGAGCACCTTCGACTTCGCGACGGGCAA
GATGCTGATGAGCAAGATGAACAAGAGCCGCCAGCGCGTGCCTACGACTCCTCCAACCAGGTCAAGGGCAAGCC
CGACCTGAACACGGCGCTGCCCCTGCGCCAGACGGCGTCCATCTTCAAGCAGCCGGTGACCAAGATTACCAACCA
CCCCAGCAACAAGGTCAAGAGCGACCCGCAGAAGCGGTTGACCAAGCGCGCCAGCTCTTCTGGGAGAAGAAGCT
GAGCGGCTGAACGCCTTCGACATTGCTGAGGAGCTGGTCAAGACCATGGACCTCCCCAAGGGCTGCAGGGGGT
GGGACCTGGCTGCACGGATGAGACGCTGCTGTCGGCCATCGCCAGCGCCCTGCACACTAGCACCATGCCCATCAC
GGGACAGCTCTCGGCCCGCGTGGAGAAGAACCCCGGCGTATGGCTCAACACCACGCAGCCCCCTGTGCAAAGCCTT
CATGGTGACCGACGAGGACATCAGGAAGCAGGAAGAGCTGGTGACGAGGTGCGGAAGCGGCTGGAGGAGGCGCT
GATGGCCGACATGCTGGCGCACGTGGAGGAGCTGGCCGTGACGGGGAGGCGCCGCTGGACAAGGCCTGCGCTGA
GGACGACGACGAGGAAGACGAGGAGGAGGAGGAGGAGGAGCCGACCCGGACCCGGAGATGGAGCACGTCTAGGG
CAGGTGCTGCGGGGGCCACGGGGGCTCCCTGGAGTCGGGTCTTGGCAGTGGGGACTGCCTGGTGAACACAGATGTG
CTTGGGATGACGGGTGCCTCCCAAGAGCTTCCCATCTCCCTAGAAGAGCCCAAGCGTCCCCGTCCCGTGGAGTCG
CTAAAGCCAGCCCTCCCTGTCTTTCCAGAGGCCCTGCCGAGAGCCCGTGTCTGCTGCTGGAGCCGCCTGCAGAC
GCGGTCTCGGCCCCACGTGAACCAGGCTCGGCGGCGAAGCCAGCCTTGAGAGACACCCAGGAGGAAGGCCGTGC
TCCTGGCTCCCTCTCGGCCCGTCCCCACTTCCCGGGGCTCGGGGCACACAGCTGGGGCTGCCCCACCCGAAA
GACCCTCCACGCTCGTCTCTACAGAGTCCGGCTTCGGGAAGTGCCGGGTGCTCTGGGGCCCTGCCTGGCTCCCT
ACGACCTTTGGGCTCGAGGCCAGCTCCTCCCCATGCCCGCTGTCCAGCTCCTTGAGACTGGAGAGCAGCCAGCA
GGTGCCCGGACGCTCGGCGCCACGGCTTGCTGACAGCTGGGAGGGTTTCTCGGTCTGGAGGCGTAGTTTTGAAAC
TCACATCACCCACTGTGCAGCGTGAGGACGGGACTCTGGTCTGCTGTGGGGGGCATGCAGGACGGCGCCACTCTC
TGCCCTGCCATGCGGCTGGTGGTGCCACAGAGCCTCACCGTGCTGAGTGGCATGCCAGGAGGCCGCTCTCCTT
CAGTAAATGTAACACAGTCGAGGCACGTATCGGGCAGCCTTCCCTGTGTGCCAACGCCAGCCTTCGCTTCTGAA
AACCAAACTCCAGCCGCTGCCAGTCGGGACTTGGTCGCCCCGGCGCTGCCAGAAATGCTCCACTGCCAGCCGGCCCC
CCTGCCTCGGTTTCCCTTCTGTTTAGTGCGCACACAGGCACCCAGCTTTGGGGTGGTGCTGACGCTCCCAGGGGT
GCCAGGAGCCACTGGGACAGGGTGAGGCTCCCAGACGCTCCTCGAGGTGCCAGCTCTCCAGGGAGCTTCTGGCC
CAAGGCCGTCTGAGGGATCTGCTCCTTAACCCCCCAGTGCCCTGGCGAGGGCAGGTTCCAAGCCACAGACGCCTG
CCCCGAGTGGACTCTGCGGCCAGTCCCTGGTGCCCTCCTGGCCCTGCTGCCAGTGAGGGCTCCTACGGGTGGGT
TCATTGGCCTGGGCCAGCGAGCCCCACCTGCATTGACCTTAGGCCCATAGAGAGGGCCTGTCCCGGTGCTGCC
CCAGCCAGGATCTGGTCGCTGCCCGAGGGGACTGATGGGCAGAGTCGCCCCCTGTGGCTGGACTGTGACCATCCC
TGATGGGGCCTGACCGCGGGAGCTGAGGAAGCGCCGCTCCACCGTCTGCCCTCCAAGGACCCGCATGGAGGCAGT
GGGCTGGCAGCTTCTGCTGCTCCCTGTCAGAGTCAAAGCACAAATCCTCAGGACGGGCTCAAGGGCCAGGGCAG
CCGAGGGAAGCTCCAGGTGGGACCACGCTTCTCTGAGGTGGTGCCCACTGGCTGGGACCCCTTTCAGTGGGGT
GGCCTCCCTCTGTCTGCTGGTGGAGGGAGCCGTGGGCGTGGGGACGTGACTGAATAAAGCCACCATGGGTGGA
TGTGCTTGG

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FIGURE 5132A

GCCTGAGGTGCCCGCCCTGGCCCCAGGAGAAATGAACCAGCCGCAGAGGATGGCGCCTGTGGGCACAGACAAGGAG
CTCAGTGACCTCCTGGACTTCAGCATGATGTTCCCGCTGCCTGTACCAACGGGAAGGGCCGGCCCGCCTCCCTG
GCCGGGGCGCAGTTCGGAGGTTTCAAGTCTTGAGGACCGGCCAGCTCAGGCTCCTGGGGCAGCGGCGACCAGAGC
AGCTCCCTCCTTTGACCCCGAGCCGACCTTCAGCGAGGGCACCCACTTCACTGAGTCGCACAGCAGCCTCTCTTCA
TCCACATTCTTGGGACCGGGACTCGGAGGCAAGAGCGGTGAGCGGGGCGCCTATGCCTCCTTGGGAGAGACGCA
GGCGTGGGCGGCCTGACTCAGGCTGGCTTCTGTGAGGCGAGCTGGCCCTCAACAGCCCCGGGGCCCTGTCCCT
TCGGGCATGAAGGGGACCTCCAGTACTACCCCTCCTACTCCGGCAGCTCCCGGCGGAGAGCGGCAGACGGCAGC
CTAGACACGCAGCCCAAGAAGGTCCGAAGGTCCCGCCGGGTCTTCCATCCTCGGTGTACCCACCCAGCTCAGGT
GAGGACTACGGCAGGGATGCCACCGCTACCCGTCCGCCAAGACCCCCAGCAGCACCTATCCCGCCCCCTTCTAC
GTGGCAGATGGCAGCCTGCACCCCTCAGCCGAGCTCTGGAGTCCCCGGGCCAGGCGGGCTTCGGGCCATGCTG
GGTGGGGGCTCATCCCCGTGCCCTCCCGCCCGGTAGCGGGCCGGTGGGCAGCAGTGAAGCAGCAGCACGTTT
GGTGGCCTGCACAGCAGCAGCGTATGGGCTACCAGCTGCATGGAGCAGAGGTGAACGGTGGGCTCCCATCTGCA
TCTCCTTCTCCTCAGCCCCCGAGCCACGTACGGCGGCGTCTCCAGCCACACGCCGCTGTGAGCGGGGCCGAC
AGCCTCCTGGGCTCCCGAGGGACCACAGCTGGCAGCTCCGGGGATGCCCTCGGCAAGCACTGGCCTCGATCTAC
TCCCCGGATCACTCAAGCAATAACTTCTCGTCCAGCCCTTCTACCCCCGTGGGCTCCCCCAGGGCCTGGCAGGA
ACGTCACAGTGGCCTCGAGCAGGAGCCCCCGGTGCCTTATCGCCAGCTACGACGGGGGTCTCCACGGCCTGCAG
AGTAAGATAGAAGACCACCTGGACGAGGCCATCCACGTGCTCCGCAGCCACGCCGTGGGCACAGCCGGCGCATG
CACACGCTGCTGCCTGGCCACGGGGCGCTGGCCTCAGGTTTTACCGGCCCCATGTCACTGGGCGGGCGGCACGCA
GGCCTGGTTGGAGGCAGCCACCCGAGGACGGCCTCGCAGGCAGCACCAGCCTCATGCACAACCACGCGGCCCTC
CCCAGCCAGCCAGGCACCCCTCCCTGACCTGTCTCGGCCTCCCGACTCCTACAGTGGGCTAGGGCGAGCAGGTGCC
ACGGCGGGCCGCGCAGCGAGATCAAGCGGGAGGAGAAGGAGGACGAGGAGAACACGTGAGCGGCTGACCACTCGGAG
GAGGAGAAGAAGGAGCTGAAGGCCCCCGGGCCCGGACCAGCCAGACGAGGACGAGGACGACCTTCTCCCCCA
GAGCAGAAGGCCGAGCGGGAGAAGGAGCGCCGGGTGGCCAATAACGCCCGGGAGCGGCTGCGGGTCCGTGACATC
AACGAGGCCCTTAAAGGAGCTGGGGCGCATGTGCCAACTGCACCTCAACAGCGAGAAGCCCCAGACCAAACTGCTC
ATCCTGCACCAAGGCTGTCTCGGTCACTCTGAACTTGGAGCAGCAAGTGCAGAGCGGAACCTGAATCCCAAAGCA
GCCTGTTTGAACGGCGAGAAGAGGAAAAGGTGTGAGGTGTGGTTGGAGACCCCGAGATGGTGCTTTCAGCTCCC
CAGCCAGGCTTGAGCGAAGCCCAACCCCGCCGGGCACATGTGAAGGTATGCCTCCGTGGGACGAGCCACCCG
CTTTCAGCCCTGTGCTCTGGCCCCAGAACGGCCACTCGAGACCCCGGGCTTCATCCACATCCACACCTCACACAC
CTGTTGTCAGCATCGAGCCAAACCAACCTGACAAGGTTTCGGAGTGATGGGGGCGGCCAAGGTGACACTGGGTCC
AGGAGCTCCCTGGGGCCCTGGCCTACCACTCACTGGCCTCGCTCCCCCTGTCCCCGAATCTCAGCCACCGTGTCA
CTCTGTGACCTGTCCCATGGATCCTGAAACTGCATCTTGGCCCTGTTGCCTGGGCTGACAGGAGCATTTTTTTTT
TTTCCAGTAAACAAAACCTGAAAGCAAGCAACAAAACATACACTTTGTGAGAGAAGAAAAAATGCCTTAACTAT
AAAAAGCGGAGAAATGGAAACATATCACTCAAGGGGATGCTGTGGAACCTGGCTTATTCTTCTAAAGCCACCA
GCAAAATTGTGCCTAAGCGAAATATTTTTTTAAGGAAAATAAAAACATTAGTTACAAGATTTTTTTTTTCTTAAT
GTAGATGAAAATTAGCAAGGATGCTGCCTTTGGTCTCTGGTTTTTTTAAGCTTTTTTTGTCATATGTTTTGTAAGC
AACAAATTTTTTTGTATAAAAGTCCCGTGTCTCTCGCTATTTCTGCTGCTGTTCTTAGACTGAGCATTGCAATTC
TTGATCAACCAGATGATTAAACGTTGTATTAAAAAGACCCCGTGTAACCTGAGCCCCCCCCGTCCCCCCCCCCC
CCGGAAGCCACTGCACACAGACAGAACGGGGACAGCGCGCGGTCTTTTGTTTTTTTGATGTTGGGGTTCTCTT
GGTTTTGTCATGTGGAAGTGATGCGTGGGCGTTCCCTGATGAAGGCACCTTGGGGCTTCCCTGCCGATCCTCT
CCCCTCAGGAAGGGGACTGACCTGGGCTTGGGGGAAGGGACGTGAGCAAGGTGGCTCTGACCTTCCAGGTGACT
CTGCCAAGCAGCTGTGGCCCCAGGGCTACCTACACAACGCCCTCCCCAGGCCCCCTCAAGCTGCTCTCCCTTG
GAACCTGCACAGCTCTTGAAATGGGGCATTTTGTGGGACCAGTGACCCCTGGCATGGGGACCACACCTGGAG
CCCGGTGCTGGGGACCTCCTGGACACCTGTCTTCACTCCTTTGCCCGAGGACCCAGGCTCATGCTCTGAACCT
CTGGCTGAGAGGATGCTGCTCAGGAGCCAGCACAGGACACCCCCACCCACCCACCATGTCCCCATTACACCA
GAGGGCCATCGTGACGTAGACAGGATGCCAGGGGCTGGCCAGCCTCCCCCAATGCTGGGGAGCATCCCTGGGGC
TGGGGCCACACCTGTGCTCCCTCCTGTGTGGTCCAAGGGCAAGAGTGGCTGGAGCCGGGGGACTGTGCTGGTC
TGAGCCCCACGAAGGCCCTTGGGCTGTGCGTCCGACCTGCTGCAGAACAGCAGGGGTGTCCCTCGGGCCCATCT
GTGTCCCATGTCCCAGCACCCAGGCCTCTCTCCAGGTCTCCTTTTCTGGTCTTTTGCCATGAGGGTAACCAGCTC

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FIGURE 5132B

TTCCCAGCTGGCTGGGGACTGTCTTGGGTTTAAAACTGCAAGTCTCCTACCCTGGGATCCCATCCAGTTCCACAC
GAACTAGGGCAGTGGTCACTGTGGCACCAGGTGTGGGCCTGGCTAGCTGGGGGCCTTCATGTGCCCTTCATGCC
CCTCCCTGCATTGAGGCCTTGTGGACCCCTGGGCTGGCTGTGTTTCATCCCCGCTGCAGGTCGGGCGTCTCCCCC
GTGCCACTCCTGAGACTCCCACCGTTACCCCCAGGAGATCCTGGACTGCCTGACTCCCCTCCCAGACTGGCTTG
GGAGCCTGGGCCCCATGGTAGATGCAAGGGAAACCTCAAGGCCAGCTCAATGCCTGGTATCTGCCCCCAGTCCAG
GCCAGGCGGAGGGGAGGGGCTGTCCGGCTGCCTCTCCCTTCTCGGTGGCTTCCCCTACGCCCTGGGAGTTTGATC
TCTTAAGGGAACCTTGCTCTCCCTCTTGTGTTTTGCTCCTGGCCCTGCCCTAGGTCTGGGTGGGCAGTGGCCCCAT
AGCCTCTGGAACCTGTGCGTTCTGCATAGAATTCAAACGAGATTACCCAGCGCGAGGAGGAAGAAACAGCAGTTC
CTGGGAACCACAATTATGGGGGGTGGGGGGTGTGATCTGAGTGCCTCAAGATGGTTTTCAAAAAATTTTTTAA
AGAAAAATAATTGTATACGTGTCAACACAGCTGGCTGGATGATTGGGACTTTAAAACGACCCTCTTTCAGGTGGAT
TCAGAGACCTGTCCTGTATATAACAGCACTGTAGCAATAAACGTGACATTTTATAACG

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FIGURE 5133

MNQPQRMAPVGTDKELSDLLDFSMFPLPVTNGKGRPASLAGAQFGGSGLEDRPSSGSWGSQSSSSFDPSRTF
SEGTHTESHSSLSSTFLGPGLGGKSGERGAYASFGRDAGVGGLTQAGFLSGELALNSPGPLSPSGMKGTSQYY
PSYSGSSRRRAADGSLDTQPKKVRKVPPGLPSSVYPPSSGEDYGRDATAYPSAKTPSSSTYPAPFYVADGSLHPSA
ELWSFPGQAGFGPMLGGGSSPLPLPPGSGPVGSSGSSSTFGGLHQHERMGYQLHGAEVNGGLPSASSFSSAPGAT
YGGVSSHTPPVSGADSLGSRGTTAGSSGDALGKALASIYSPDHSSNNFSSSPSTPVGSPQGLAGTSQWPRAGAP
GALSPSYDGGLHGLQSKIEDHLDEAIHVLRSHAVGTAGDMHTLLPGHGALASGFTGPMSLGGRHAGLVGGSHPED
GLAGSTSLMHNHAALPSQPGLPDLRPPDSYSGLGRAGATAAAASEIKREEKEDEENTSAADHSEEEKELKAPR
ARTSPDEDEDDLLPPEQKAEREKERRVANNARERLRVRDINEAFKELGRMCQLHLNSEKPQTKLLILHQAVSVIL
NLEQQVRERNLNPKAACLKRREEEKVSGVVGDPMVL SAPHPLSEAHNPAGHM

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FIGURE 5134

CAGCAACTCCGTGGCCAAGCTGAGGAGGCCAGGGCCCCGCTCCTGCTTCTCCACGGGTGTGCTCTGTGGCCCCCG
ATGGAAGGGGGAAGGATCCAAGCAGGCCCTCCCTGCCAGGGCAGAAGATTCTGGAGTCCTGGGCGTTGCCTGTG
AGTGTTCTGAGAGATAAGGGCCCCGCCGCCGCCGGGACCAAGGTCTCGTCCCGTCCCTTGCTGCGCCGG
GAACTCCTGCCCCACGCAGGCTTCTGGTCTCCACACTGGGCTTGTTCCTGGGTGATGAGATTGGGCTCCACCCTC
ACGGGCTGCCAGCCTCCTGCCGATGGGTGAGCCTCTGCTGCTGCTTCAGCAAAGGGCGGCCCCACTTCCCACAC
TGGCAGGTGGGGACAGGGAGACCCTGGGCCCTCCCCAGAGCTCATGGGTAGCTTCCACACCCTCATGCTGTCATG
AGCCTTTCTCACAGGGTCAGAAGAGTCTGCATCTGACACAGAGACCCAGTCCACATAGTCAGGGCTGGGCCAGA
GGGAGGGACTTGGGGCTGATGGGGAGGAGGCTCGGCGTGAGAGTGAGGTCTTGCCCAAGGAGGGTATGAAAGCT
GGGGCTTTAGTGGGTGGGTAGGAGTTGGCCAGCAGAGAGCCGACGGAAGAGTTAATTTAAGTTTATGGACCTGTA
AGTGCTCCGAGTCCAGGGTGTCTGGGTGTTAGCTGCTGACTGGTGTCTCATGAGTCGGGCTGGGTGAGGCTGG
GTTAGGAAGGGTTCCACAAGCCCCCGGGTCCACTGAGGTTTGCCCCTGAGATGATGAACCGAAGCTTTTAGAGC
TGGGCAGGCGTGAGGGTGACCCATAACTCTCTCTGCTCCTGCCTGCAGGTCTTGAGGACCGGCCAGCTCAGGCTC
CTGGGGCAGCGGCGACCAGAGCAGCTCCTCCTTTGACCCAGCCGGGTAGGAGTCCCCGTGAGGCCTGAGACCCT
GAGTTTCCTGTCCCCAGAGTTGGGGGCGAGGGGTGTGGGAAACTGAGGCTGAGAGAAGGGGCCAGCCTTCCAGG
GGTTTGACTGGGGGACATGGGTTTGAGTCCTGCCTCTCCAGCTGTAATGCGGGGTGGAGGGGGGGCCTGTGAAG
CCCCAGCACCTCTCATCCCCACCCATCTCCCCTAGACCTTCAGCGAGGGCACCCTTCACTGAGTCGCACAGC
AGCCTCTCTTTCATCCACATTCTGAGGACCGGGACTCGGAGGTGAGTGCCTGGCCTGGTGCCTCCCTCTGCTGTG
CACAGATGTGCAGACGTGGGCCCTTGGCATGGTCAGTGCACGCACAGCGCCAGGCAAGTCCCCAGCGTTACCCAG
AGGGTGTGGACAGCCGAAGCCTCTGCCCGTCTGAGGAGCAGCTGCGGGGAGGTGCAGGGGACGTGGCCCCGACTC
CCTGGCACGGCACTCTGCAACTAGGCTTCCCCGCCTGAGCGTAGAGGCAGGGAGGCCGTTCAGACCCCCACTTCC
TCCCTGGGATTTCTGCAGGGCTCCTCCTGCTTCCCGGGGAGGGGTGAGCCGGGCTGGCCTGTGCCCGCTGGGAAG
GAGGCGTAGGAGTTCTGGAGACTCGGGAGGGCGGCCAGAGTGTGCGGTGGTCAGAGCCCATGCCCTTCCGCAGAC
CGCCCCGCCGCCCTCTTTCCCTGGGGGGCCCTCCTGTTAACCAGAGAGAATCGTGACTCAGGTTGGGCTCGGTGGC
TCACGCCTGTAATACCAGCACTTTGGGAGAGCGAGGTGGGTGGATCACCTGAGGTGAGGAGTTTGGAGACCAGCCT
GGCCAACATGGTGAAACCCCGCTTCTACCAAAAACACAAAAATTAGCCGGTCATGGTGTTGGATGCTTATAGTGC
CAACTACTCAGGAGGCTGAGGCAGGAGAATTGCTTGAACCCAGGAGGTGGAGGCTGCAGTGAGCCGAGATCACGC
CATTGCCCTCCAGCCTGGGTGATGGAGCGAGATTCCATCTT

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[illegible]

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FIGURE 5135B

ACAAGCGGTCCCTGCGGAACCTCATGGCCGACTACCTCAGACAGATCATCCAGGACAATGTGGATGGGCACAGCT
CCAGCGAGGACGCCGGCGCCTGCATGCACCTGGTGATCTGGAAGGTTGAGAAGACGCCAAGACCAAGCGATGAC
GCCTGCCCCGCTCCACCCGCTCTCCTGCCGTCCCGCTGGTCCTTAGCCCCATGCCTCTTCCAAAACAGTGCAA
TAAATCTCCGGTAACCCGTCCACCTGGCCGAGGCAGCCAGAGCAGCGGGATGAGCTGGCGGCCAGAGAACGCCC
AGCCCAGCCCACCCCGCTCACGTCTGCCGCACCCCTCCGCCGGTCCCCACCCCTCTGCCCCCAGCCCTCTGGC
GTCTCTAGAAACTGCTGCTGATGGAGACCAGGACAGAGCCCGCCCCACCCGGCCCGCAGCCCTCTGCCCCCTC
CTGCCAGGCCCTCCCTCCCGGGTGGTGGCCGGCACCTCTGCTCCTCACGTGGGTGCGGGGGCGGGCTTGTCCAG
GTTTGTTTGAGACAGTCTTTTTTTATTTTGTATTGTTATTTTTATTATTTTAAATTTAAACCTGATGACTTGCAC
AGCATCTTTCCCACCGGGAAGAGCGGGCCTGCTGCCTTCCCTCCTGCGGGGTGGGGGTGGGACAGACCCAGTGG
GGGCCAGGGCCACACTCAGCGCAGTGTGGGCTGGACCCGCCTCTGTGCTCCAGGGGCTGGCCGGTCTTCGGGGGC
GCCGGCTTCCACCACCTCGCCGCCCCACCCCTGCACTCCGTGACCTCTGAGAACCCAGCTGGCCCTCGTTAGCCC
CAGGGTCTGCCGTCTAGAGGGAGCCCACCGGCCTCCGGACACTGTCTTCCCGCTAGAGCCCGTCCTCCTCTGCG
GGGCTCTCCGGACCCCTTCCCCCTCACCTCCAGGCAGGACAGAATAAATGTTTGTATGGATTTT

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FIGURE 5136

MLRSTGFFRAIDCPYWSGAPGGPCRRPYCHFRHRGARGSGAPGDGGEAPPAAGLGYDPYNPELPKPPAQRENGTL
GLGEEPRPDVLELELVNQAIEAVRSEVELEQRRYRELLETTREHRSAPALAPRGPNASPTVGPDEDAFFPLAFD
YSPGSHGLLSPDAGYQPTPLAAPAEPGSKYSLASLDRGQGRGGGGGGALEYVPKAVSQPRRHSRPVPSGKYVVDN
SRPPTDLEYDPLSNYSARHLSRASSRDERAAKRPRGSRGSEPYTPAPKKLCDPFGSCDARFSDSEDEAATVPGNE
PTTASTPKARADPEIKATGQPPSKEGLEAEGGGLRETKETAVQCVDGLQPPPAKPASPAQVQSSQDGGCPKEGK
PKKKKTGAPPAPSCKDGAQGKDKTKDKGRGRPVEKPRADKKGPQASSPRRKAERPEGTKKKPSSATPVATSGKGR
PDRPARRPSPTSGDSRPAAGRGPRLQLPDRKSTKAPSGKLVERKARSLDEGASQDAPKLKKRALSHADLFGE
SEDEAAGPGVPSVWPSALPSLSSDSDSDSDSSLGFEAQGPPKRLKASPPSPAPSSSSSSSSSTSSAGADVDS
ALEKEVDFDSDPMEELRIFNESTSVKTEDRGLARQPPKEEKSEEKGLSGLTTLFPGQKRRISHLSKQGQEV
PRRGPAVPPARPPPTAQEVCYLRAQQAQRASASLLQAPARLAEKSPSVHISAPGEKRRIAHIPNRLAAAPTGA
TLAASGSQSSNGPEPGGQQLKTRTLSGMASKTTTTIIPKRIAHSPSLQSLKKPIIPKEFGGKVPTVIRQRYLNLF
IEECLKFCTSNQEAIEKALNEEKVAYDRSPSKNIYLNVAVENTLKKLRGLAPSAPVGLSKTSGRRVVSHEVVLGGR
LAAKTSFSLSRPSSPRVEDLKGAALYSRLREYLLTQDQLKENGYPFPHPERPGGAIIFTAEKRPKDSSCRTCCR
CGTEYLVSSSGRCIRDEECYYHWGRLRRNRVAGGWETQYMCCSAAAGSVGCQVAKQHVQDGRKERLEGFVKTFEK
ELSGDTHPGIYALDCEMSYYTYGLELTRVTVDTDVHVVDYTFVKPDNEIVDYNTRFSGVTEADLADTSVTLRDV
QAVLLSMFSADTILIGHSLSDLLALKVIHSTVVDTSVLFPHRLGLPYKRSRLNLMADYLRQIIQDNVDGHSSE
DAGACMHLVIWKVREDAKTKR

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FIGURE 5137

TGCAACGGGGCCCCCAGGGCAGCTAGGAGGTCCTCCCTCTCCTCTCCACCACCCCTGCTGCCCCCTCCCG
GGGTGGGGTTTGGGGGGGTGGAGTGGACTTCTGGGAGCCGGCCCGGGGAAAGCACCCCTGCCCATCCCTGCAG
ATTGGGATGAAGTGTTTCAGACAGCCATAGAGGAGTCGGGGGTGACACGGCCCTGCCCTCTCCCCACCCACCCC
CACCCACCGAAAGCCATGGGAGTAGTTTCAAGGAAATGGGGGTGACGCCAGCCACCCCTTTCGGGTACTCAA
TCTCAGGTGTCCACAAGTTCTGCGCACGGTAGGGGCTGCCTGGCCCCCAGACCTCGGGGGTAGAGCCAGGAGTG
GGGCAGCGTTAGGATGCCCGAGGGGCTCCAGGTGTTGCTTCTGAGACCTGGGATGGGGAGGGAGGGACCTCTG
GGTTCTTCCAAAGAACATTTGACTCAGTGGGGTCGGGAGGGAATCCTGGCTTATTTATTTTCTCTGTCTCGGG
TGTGGGGGCCCTAGCTCGCCCTCTCTGGGTGGGTGGGTGAGAGAGGCTGCAGGGGAGGCTGGCACC GGCGTTGGG
CCTCCAGTCCCTGCCTTGCTGACTTTGGCCGTTGCGGTATCACGTGACAATCAACTCTCCCTTAACGACGACTGC
GGCTGTTGGGCTGCGCTGCCCTCCCTGGCCTGCAGGTGGGGCCGTGGAGCCCATGCCCGCCGGGGTTGCAGGCTC
TTCCGGGCCTGGGCTGCAGCCTGGCCCGGCCCTGCTTCCCTGGCCTCCCTCTCTCTGGGTGCTTGGAAGAG
GTGGGTCTTGCCCCGTGGTTGAGGTCTTGCCCTCGTGGACTGGAAGCAGAGGGCTGGCTGTGCAGCCTCCTGGGGT
AGCTCGTTTTTTTTTGACCGGGTAGAATATTTTTTCAGGCACGGATTCTTTTTTTCTGGGCCCCCATGGGTGGT
CCGGCATCCTCAGGGGGTGTGAGTGTGTGTGGGGGGTCTCTGAGCTGAACCTGGGTGGGTGGGGACTTGTTCCT
CGGGGGCCACCTTTGTGTCTTGTTCAGCGGTGCTCTGCTGTGGCCTGGGTGTCATTTCTCTTGGGGGGGGTAT
TGAGGACCCCCAGCCTGGAATGAGAAGGGTCCCCGTTCCATGTCAGACCCAGAAAGGTGGATCCCCCACTGTT
GGCTGCAGGAGGTTTTTGGTACCCCTTTTGTTCAGAACCGTCTGCTCTCGCTTGGGGACAGGGGGGCTTTG
GATGGCACTGGTGTGCACCTGGACCCAGCCCCGGCCTGGCAGGATCCAGGGATGGGTGCTGGGATCCTGGGGGG
AGGGAGGCAGGGGACGCCCTTCTGGAGCTGGGCTCGGAGGGTCTGCCCCATCCAGCCCTCGGCTCTCTGTGTTC
TCTGTCCCTAGCCTCAAACCTCTTCTGGCAGCGCTAGTGAGATGCCTTAGTCTGTGGGGGTGGGTGGGGGACTG
GGGCCCCGTTTTCTTTGTGAGTCTTGGTTGGCCCCAGCCCTGGCAGGGGCCTGTCTGGAGCAGGGGTAGGTAGG
GCTGTGGGTTCAGAACTCTATAACTGGGCCCCCTCTCCAGTGTCCAGGGGCTTGGAGAGACCTGCGCCACCCCT
CCACTCTCCCAGGAGTCGCTGATCACTGGGACCTGGTTCCAGCCGTTTGCAGGGGAGGCGGCTCCGAGAGGCGTG
TGCTTTCCGTGGGTGGCGCCCTCCCCCGCCCTGCCTGGCCTCATCCTTGATTATAATTAATAAACAAGCCCCCT
TTTTAAACCCT

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FIGURE 5138

GCGGAGGGACCGACGGACGCACGGGCGGGCGGCCGGGAGCCATGGAGCGCGGCCCTGGGGCCCCGGGGCGCGGGC
 CGGGGTGGGCTTCCCACGGCAGACATGGAGACCTGTGGTTGCGAGGCTCCCTGGGGCTCGGCTTGGACCGCGAT
 GGGGCTGGGCCCTGGCCTCCTAACGGGGCTGCTGTCTGGGGCGGTAGCTGGGGGGGCGCTCTCCCCCTGCCCGC
 GACTCGGAGCACCCCCACCCCTCCCTGCCGGGCCAGGCCGGGCGGCGTTGTTGGCGGGGGCCCCGGTGGAGGCC
 CGGCCTGGGCGGCGCCCGCCATGAATGGGCTGTGCTGAGTGAGCTCTGCTGCCTCTTCTGCTGCCCGCCCTGCC
 CCGGCCGCATCGTGCCAAGCTCGCCTTCCTGCCGCCGAGGCCACCTACTCCCTGGTGCCTGAGCCCGAGCCGG
 GGCCTGGTGGGGCCGGGGCCGCCCTTGGGGACCCTGAGAGCCTCCTCGGGCGCACCCGGGCGCTGGAAGCTGC
 ACCTGACGGAGCGTGCCGACTTCCAGTACAGCCAGCGGAGCTGGACACCATCGAGGTCTTCCCCACCAAGAGCG
 CCCGCGGAACCGCGTCTCCTGCATGTATGTTGCTGCGTGCTGGTGCCAGACAAGGACACCAGGCTCAGGGAG
 GCCATCCCCAGCTGGCATGGGTGGGCAGGCTGGGCGACTCCAACAACCCAGCGCCTGGTGGTTGCCTGCTGGGCG
 AGAGCTGGGGCACAGGGGCTGCCCTGGCCTGCGGGTACATCCACCTTCTCGCCAGGTACACGGTCCTTCTTCGC
 ACGGCAATGCCGTGGACCTGGGCCAGATGAGCAGCTTCTACATTGGCCTGGGCTCCCGCCTCCACTGCAACATCT
 TCTCCTACGACTACTCCGGCTACGGTGCCAGCTCGGGCAGGCCCTCCGAGAGGAACCTCTATGCCGACATCGACG
 CCGCCTGGCAGGCCCTGCGCACCAAGGTACGGCATCAGCCCGGACAGCATCATCCTGTACGGGCAGAGCATCGGCA
 CGGTGCCACCGTGGACCTGGCCTGCGGCTACGAGTGTGCCGCGGTGGTGTGCACTCGCCGCTCACCTCGGGCA
 TCGCGTCTGCCCTTCCCCGACACCAAGAAGACCTACTGCTTCGACGCCTTCCCTAACATCGAGAAGGTGTCCAAGA
 TCACGTCTCCCGTGTCTCATCATCCACGGCACGGAGGACGAGGTGATCGACTTCTCGCACGGGCTGGCGCTCTACG
 AGCGCTGCCCCAAGGCGGTGGAGCCGCTGTGGGTGGAGGGCGCCGGGCGACAACGACATCGAGCTCTACAGCCAGT
 ACCTGGAGCGCCTGCGTGCCTTCATCTCCAGGAGCTGCCCAGCCAGCGCGCTTAGCGGCGGCCCCAACC GGCCG
 GACCTCAGCAATAAGGCGGCCCCCGGACCTCACCCCGCGCCGGCCCCCACCAGGGGCTGCATGTGGACCCCCCG
 GGCGGCCAGGGGACCCCGCCCCGACCCAGGGGCTGTGGACGATGTACAGGCAACAGAGCTACGCACTCCTTTCC
 TTTTGAAGCAAGAAGAAAATACGTGAAAACGGAAATTAAAGATTTAAAAATTTAAAAA

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FIGURE 5139

MNGLSLSELCCCLFCCPPCPGRIAAKLAFLPPEATYSLVPEPEPGPGGAGAAPLGTLRASSGAPGRWKLHLTERAD
FQYSQRELDTIEVFPTKSARGNRVSCMYVRCVPGARQGHQAQGGHPQLAWVGRLGDSNNPAPGGCLLGESWGTGA
ALACGYIHLLARYTVLF SHGNAVDLGQMSSFYIGLGSRLHCNIFSYDYSYGASSGRP SERNLYADIDAAWQALR
TRYGISPDSIIILYGQSIGTVPTVDLASRYECAAVVLHSPLTSGMRVAFPDTKKTYCFDAFPNIEKVSKITSPVLI
IHGTEDEVIDFSHGLALYERCPKAVEPLWVEGAGHNDIELYSQYLERLRRFISQELPSQRA

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FIGURE 5140

ATGAATGGGCTGTCGCTGAGTGAGCTCTGCTGCCTCTTCTGCTGCCCCGCCCTGCCCGGCCGCATCGCTGCCAAG
CTCGCCTTCTTGCCGCCGGAGGCCACCTACTCCCTGGTGCCTGAGCCCCGAGCCGGGGCCTGGTGGGGCCGGGGCC
GCCCCCTTGGGGACCCTGAGAGCCTCCTCGGGCGCACCCGGGCGCTGGAAGCTGCACCTGACGGAGCGTGCCGAC
TTCCAGTACAGCCAGCGCGAGCTGGACACCATCGAGGTCTTCCCCACCAAGAGCGCCCGCGGCAACCGCGTCTCC
TGCATGTATGTTGCTGCGTGCCCTGGTGCCAGGTACACGGTCCTCTTCTCGCACGGCAATGCCGTGGACCTGGGC
CAGATGAGCAGCTTCTACATTGGCCTGGGCTCCCGCCTCCACTGCAACATCTTCTCCTACGACTACTCCGGCTAC
GGTGCCAGCTCGGGCAGGCCTTCCGAGAGGAACCTCTATGCCGACATCGACGCCGCTGGCAGGCCCTGCGCACC
AGGTGA

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FIGURE 5141

GGGATTTGCACGGCAGCAGAGTCACCGTGGAGAGGCCAGGGTATCACAACTTATCGATTTTGACAAGAAAGGAG
GAAAAGGGGAGACGGAGGAGGGCCGGAGAATGTCCAAGGCCGGCGGGGGCCGGAGCAGCCACGGCATCCGGAGCT
CGGGGACCAGCTCGGGGGTCTGATGGTGGGCCCAACTTCCGCGTCGGCAAGAAGATCGGCTGCGGCAACTTCG
GGGAGCTCCGCCTAGGAAAGAATCTCTATACAAATGAATACGTGGCTATCAAATTGGAGCCGATCAAGTCCCGGG
CCCCGCAGCTGCACCTGGAGTACCGGTTCTACAAGCAGCTCAGCGCCACAGAGGGCGTCCCTCAGGTCTACTACT
TCGGTCCGTGCGGGAATTACAACGCCATGGTGTGGAGCTGCTGGGGCCAGCCTGGAGGACCTGTTGACCTGT
GCGACCGGACCTTACGCTCAAGACGGTGTGATGATCGCCATCCAGCTGATCACGCGCATGGAGTATGTGCACA
CCAAGAGCCTAATCTACCGGGACGTGAAGCCCCGAGAACTTCTGGTGGGCCGCCCCGGGGACCAAGCGGCAGCATG
CCATCCACATCATCGACTTCGGGCTGGCCAAGGAGTACATCGACCCCGAGACCAAGAAGCACATCCCGTACCGCG
AGCACAAGAGCCTGACGGGCACGGCGCGCTACATGAGCATCAACACGCACCTGGGCAAGGAGCAGAGCCGCGCG
ACGACCTGGAGGCGCTGGGCCACATGTTTCTGTTCTTCTGCGCGGCAGCCTCCCTTGGCAGGGGGCTCAAGGCCG
ACACGCTCAAGGAGCGGTACCAGAAGATCGGGACACCAAAACGCGCCACGCCCATCGAGGTGCTCTGCGAGA
TCCCAGAGGAGATGGCCACGTACCTGCGCTATGTGCGGCGCCTGGACTTCTTCGAGAAGCCCGACTATGACTACC
TGCGGAAGCTCTTACCGACCTCTTCGACCGCAGTGGCTTCGTGTTGACTATGAGTACGACTGGGCCGGGAAGC
CCCTGCCGACCCCATCGGCACCGTCCACACCGACCTGCCCTCCCAGCCTCAGCTCCGGGACAAAACCCAGCCGC
ACAGCAAAAACAGGCGTTGAATCCACCAACGGGGAGCTGAATGCGGACGACCCACAGGCCGGCCACTCCAACG
CCCCGATCACAGCGCTGCGAGGTGGAGGTGGCCGATGAAACCAAAATGCTGCTGTTTCTTCAAGAGGAGAAAGA
GAAAATCGCTGCAGCGACACAAGTGAACCTGGGCGCGTGCAGCCCCCTGAATCTTCTCCGTGCAGCCCCCTTGGGG
CGCGACCTTGTGCGAGGCCCTCGGGGGCCACCCACAGCGGCCAGGGCCAGACCCTGGCTGGAAGCCAGAACGCA
GACTGCAGGGGCGCGCTGGCTCAGGCGGCCCCACCCCGGGACGTGGGGTCACTTCTTTCATGTAAGACTTTG
GCCGAAATTTCTACACCTGTGTCTAGTCTCCCTCCCAAGAGCATTAATATTTAAACAAGGAAAAGAGGAAAA
AAAAACAGAGGCCCGCCCTACCCCACTCCTGCCCCCTCCGTTTCTTTGCTGAAGTGAGTAGTGTGATCCTGGAGG
CCCCCGGCTTGCCCCGCCCCGCCAGCCGCCCCCGTTAGCGTCATAAAGTCCAGCTTGTCTCCCTCGATCCAAA
GGCCGTTTTCTCGAGGGGAGGGCAGGCCCGGCTGGAGGGGTGCTGTGGAGCTGTCTTGCCAGGCCCTCCTGGG
AGGGGACAGGCATTGTTGCCAGGGGTGAGGCCGTGCCCCAGGCCCTCCCCGAAACCAAGGGGAAGGCAGGGGTG
GGCCGTGGCTGAAGCCGGCTCCCCAACCAAAATGCTGCACCAAGCTCGGGCGCCGCGGGCACGGCTGCTGCAG
TCTTCTCCAGCCTGGCCCTGGCAAGGGGCGGGTGGGCGCTGCCAGGCGGGTGTCTTCTCGACGCACTTGTCTCCG
GAGGCTGCGCCCCGGCGCTGGAACCCGAGGTGGGAGGACCGGTTGGTGTACCCCTGCTCGGCCCTCAGCCCTGC
CGCGTGGGGCGCGTGGGCACGGAGCTTCTGCTCTGCTCCGACACCCGGCAAGCAGCCGGAGACAAAACGCCTT
AAAGCCCCCGGCCAGCCCTGCAGGTATATTGACGGGGCTGGGGGCGGCCCTGGACTGGCGGGCGGTTCCCCAG
TGGGGTGCCCTGGAGGCTGCCGGGCAGAGTGGAGCAGCTTGGGGCCGTGCCAGGGCGGTGGCTGTGAGTCTAGT
TTTTGCTTTACCAAGTGTACAGAAATGGCATTACGTTTCTCTGATGCTCCCTTGAAGCCATAGAATTTAGGGC
TTTTTTAAAAAAATAAAAGAAAAATGAAACCAAAAAAAAAAAAAA

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FIGURE 5142

MDFDKKGKGETEEGRMSKAGGGRSSHGIRSSGTSSGVLVGPVFRVGGKIGCGNFGELRLGKNLYTNEYVAIK
LEPIKSRAPQLHLEYRFYKQLSATEGVPQVYFPGCGNYNAMVLELLGPSLEDLFDLDCDRTFTLKTVMIAIQLI
TRMEYVHTKSLIYRDVKPENFLVGRPGTKRQHAIHIIDFGLAKEYIDPETKKHIPYREHKSLTGARYMSINTHL
GKEQSRDDLEALGHMFMYFLRGS LPWQGLKADTLKERYQKIGDTKRATPIEVLCEFPPEEMATYLRVVRRLDFF
EKP DYDLRLKLF TDLFDRSGFVFDYEYDWAGKPLPTPIGTVHTDLP SQPQLRDKTQPHSKNQALNSTNGELNADD
PTAGHSNAPI TAPAEVEVADETKCCCCFKRRKRKSLQRHK

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FIGURE 5143

ATGGCGGCGGGTGGGAGCGGCGGGCGTGCGTTCGTGCCCGCCGGGGGTGCGGGTTCGGCCCGGGCACGGGGGGCAGT
CCCGGGCCAGCGCCAACGCCCGCCGCCACCCGGCCCCCGGCAACGCGGCCGCCGCCGCCGCCGCCGCCGCC
GCCGCCGCCGCCCTGGGCGACGCCGCCGCCGCCGCCGGGGCCCCGGGACAGACGCGCAGGCCGCGGGCGCGGAG
CGGGCGGAGGAGGCGGCGGGCCCCGGGGCGGCGGCGCTGCAGCGCGAGGCCGCGTACAACCTGGCAGGCCAGCAAG
CCCACCGTGCAGGAGCGCTTCGCCTTCCTCTTCAACAACGAGGTGCTGTGCGACGTGCACCTTCCTGGTGGGCAAG
GGGCTCAGCTCGCAGCGCATCCCCGCGCACAGGTTCTGTGCTGGCCGTGGGCAGCGCCGTCTTTGATGCCATGTTT
AACGGGGGAATGGCCACAACATCCACGGAGATTGAGCTGCCCGACGTGGAACCCGCCGCCTTCCTCGCACTGCTC
AAGTTTCTCTACTCGGACGAGGTGCAGATTGGCCCGGAGACGGTGATGACCACGCTATACACCGCCAAGAAGTAC
GCGGTGCCAGCGCTCGAGGCCATTGCGTGGAGTTCTGAAGAAGAACCTGCGAGCCGACAACGCCTTCATGCTG
CTCACGCAGGCGCGACTCTTCGATGAACCGCAGCTGGCCAGCCTGTGCCTGGAGAACATCGACAAAAACACTGCA
GACGCCATCACCGCGGAGGGCTTACCGACATTGACCTGGACACGCTGGTGGCTGTCTGGAGCGCGACACACTG
GGCATCCGTGAGGTGCGGCTGTTCAATGCCGTGTCCGCTGGTCCGAGGCCGAGTGTACGCGGCAGCAGCTGCAG
GTGACGCCAGAGAACAGGCGGAAGGTTCTGGGCAAGGCCCTGGGCCTCATTGCTTCCCGCTCATGACCATCGAG
GAGTTCGCTGCAGGTCCCGCACAGTCGGGCATCCTGGTGGACCGCGAGGTGGTCAGCCTCTTCCTGCACCTTACC
GTCAACCCCAAGCCACGAGTGGAGTTTATTGACCGGCCCGCTGCTGCTGCGTGGGAAGGAGTGCAGCATCAAC
CGCTTCAGCAGGTGGAGAGTTCGCTGGGGCTACAGCGGGACAGTGACCGCATCAGGTTCTCAGTCAACAAGCGC
ATCTTCGTGGTGGGATTTGGGCTGTATGGATCCATCCACGGGCCCCACCGACTACCAAGTGAACATCCAGATTATT
CACACCGATAGCAACACCGTCTTGGGCCAGAACGACACGGGCTTCAGCTGCGACGGCTCAGCCAGCACCTTCCGC
GTCATGTTCAAGGAGCCGGTGGAGGTGCTGCCCCAAGTCAACTACACGGCCTGTGCCACGCTCAAGGGCCCCAGAC
TCCCCTACGGCACCAAGGCTGCGCAAGGTGACACACGAGTCGCCCCACCACGGGCGCCAAGACCTGCTTACC
TTTGTCTACGCGGCCGGGAACAACAATGGCACATCCGTGGAGGACGGCCAGATCCCCGAGGTTCATCTTCTACACC
TAGGCTGCCCGACACCGACACCGCCCTCCCTCCGCGGGGATAGCCGACGCCCCAGGCCATCATCTGCTGCTGGGG
TCCCCCACCACGCGGTGCCAGGCCAGTGTCGCCAGGCCGTCTGTCCACTCCATGCCACCTTTCTCAGCATCA
GGACGGGGTTGCCCTGTGTTACCCACGAGTGTGGCTGCTGGATCAGGGCAGCCGGGGAGGTGGCCAGGCCAGTGG
CCAGGCCCTGTGGAGACAATCCCTCAGGACTAGGGACAGGGCTGTGCCGGCCTGGGCCAGGGCCCCACGGACCCGC
AGCTCAGGGCGCCTGCCACGTCGCTGCGGGCGGTGCGCCGCGGGCGTCCCTCGCGTCTCTTCACTGCACATTG
CAATGCATTTGCGATTCCCATTTCTCTGCTAGGAGCCAGCCTGGGTGGCGCTGCTCCCAGAGCCGTGGGTCCCAG
ACCTTGCGTTCTTTTGTTCCTGTCCGTTTATCAGGACACGGGCCCCACCTGTACGTGCCCGAGGCCACCCAAG
CCCAGCCTGCGGGGCGTTCCCACTGCCTGGATGCCGGCTTGAGTTCTGCGCACGCAGGATTCAGTGTGGGGACGG
CCCCTGCCGGATAGGCCTAGCCCTGGCCAGGTGGTGAGCGGTTTGCAGTGTCCGTTCTCATCCACCTGATGGGC
CCAGATAAAGGCCCCGCTGTCCAGCCTCCCTGGACGGCCCTCGCGGTCCCTGCAGCCCCAAGATGGGACTCAGAC
CCTGTGCCCCAGAGCTCCCTGCCGAGAATGGGGCCCCAGCCGGCCCCGACCGGGTCCAGGAGCACTGCTCGCC
TGTACATACTGTTGCCCTAGCCACCTGGTGCCGTGGGAGCCACCCCAAGGTGCTGGGGGCACAGCCCCCTCCCA
CTCCGGCCACGCCCCACCCACCCGCGTGTCTGCCCCGTGACTCCTGGAACCTGCGTCTCTCCCAAGCCAT
GGGAGGGGTGTCTCTCAGACCATGCCCCAGATGATTTTTTTAAATAAAGAAACAATGCACCTGCAAAAAA
AAAAATAGAAAATAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 5144

MAAGSGGRASCPPGVGVPGTGGSPGPSANAAATPAPGNAAAAAAAAAAAAAAGPTPPAPPGPGTDAQAAGAE
RAEEAAGPGAAALQREAAYNWQASKPTVQERFAFLFNNEVLCDVHFLVGKGLSSQRIPAHRFVLAVGSVFDAMF
NGGMATTSTEIELPDVEPA AFLALLKFLYSDEVQIGPETVMTTLYTAKKYAVPALEAHCVEFLKKNLRADNAFML
LTQARLFDEPQLASLCLENIDKNTADAITAEGFTDIDLDTLVAVLERDTLGIREVRLFNNAVVRWSEAEQRRQLQ
VTPENRRKVLGKALGLIRFPLMTIEEFAAGPAQSGILVDREVVSFLHFTVNP KPRVEFIDRPRCCLRGKECSIN
RFQQVESRWGYSGTSDRIRFSVNKRIFVVGFGLYGSIHGPTDYQVNIQIIHTDSNTVLGQNDTGFSCDGSASTFR
VMFKEPVEVLPNVNYTACATLKGPDSHYGTKGLRKVTHESPTTGAKTCFTFCYAAGNNNGTSVEDGQIPEVIFYT

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FIGURE 5145

TATTTATAAACACACTCACAGGGCCAGATTGGGGCCACGGGGCCATAGTTGCCAGCCCGGCTTTAACTGCTGGTCC
TCACGTTAGTCTCACTGCCTCCTGCAGGGTGGGCATGTGGGTGTCGTGTTACGCAGCCCCCTTCTCCACCCCCAC
AGACACGCTGGTGGCTGTCTGGAGCGCGACACACTGGGCATCCGTGAGGTGCGGCTGTTCAATGCCGTTGTCCG
CTGGTCCGAGGCCGAGTGTACGCGGCAGCAGCTGCAGGTGACGCCAGAGAACAGGCGGAAGGTTCTGGGCAAGGC
CCTGGGCCTCATTGCTTCCCGCTCATGACCATCGAGGAGTTCGCTGCAGGTAACAGAGCTCGGGCTCAGGGGCT
GGTTTGGGAGGGGAGTGGCACACAGGTGGGCATCTGGGTACCGAGGATAGTGCCCCCGAGTTCAGTGCAGGAAAGC
CTGGCAGATGCCTGGCATATACAGATAGGAAGAAACCTGGCTTGTGAGGACGCGTCCACAGGGCCATCTGTTAGC
CCCGGCCCGGCTCTGTCCCCACCGTGACACTGCCAGACCCCGCCTCTCGTGTCTGTCCAGCTGTTTTGGTGGCA
TCTTCCCAGGAGGGAAGGGAGTCCCCGTCTCGCGCCCTTGTGCTACCTGCTGGTGCAGGTACAGTGTCTGTGAC
GAGCTCAGGAGGGCTCTGACATGGCCGGGGTGGCTGTATGCGCCCGAGTGGGCCTTGGGGTCCCCTGCTGCAGG
GCCTGGGTTCCAGGGTGACGTGAAGGGGCAGCGCTAACGATGCCTCCTGCCCTCGTGGCTGCTCACTGCCTGACG
CCATCCAGCTCTGGAGCAAAACAGGCCTGGAACTTCCAGAAGGGGCTGGGACAGAGCCCTGGGGCTGGTGCACA
CTCGCCGTCTGGCCTTCCCCAGGTCCACGCGGCC

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FIGURE 5146

GCTGGCGGGGCCCCGGACAGAAGATGGTGCAGAAGAAACCAGCCGAACCTCAGGGTTTCCACCGTTCGTTCAAGGG
GCAGAACCCCTTCGAGCTGGCCTTCTCCCTAGACCAGCCCCGACCACGGAGACTCTGACTTTGGCCTGCAGTGCTC
AGCCCGCCCTGACATGCCCCGCCAGCCAGCCCATTTGACATCCCGGACGCCAAGAAGAGGGGCAAGAAGAAGAAGCG
CGGCCGGGCCACCGACAGCTTCTCGGGCAGGTTTGAAGACGTCTACCAGCTGCAGGAAGATGTGCTGGGGGAGGG
CGCTCATGCCCCGAGTGACAGCTGCATCAACCTGATCACCAGCCAGGAGTACGCCGTCAAGATCATTGAGAAGCA
GCCAGGCCACATTCGGAGCAGGGTTTTAGGGAGGTGGAGATGCTGTACCAGTGCCAGGGACACAGGAACGTCCT
AGAGCTGATTGAGTTCTTCGAGGAGGAGGACCGCTTCTACCTGGTGTGTTGAGAAGATGCGGGGAGGCTCCATCCT
GAGCCACATCCACAAGCGCCGGCACTTCAACGAGCTGGAGGCCAGCGTGGTGGTGCAGGACGTGGCCAGCGCCTT
GGACTTTCTGCATAACAAAGGCATCGCCACAGGGACCTAAAGCCGGAAAACATCCTCTGTGAGCACCCCAACCA
GGTCTCCCCCGTGAAGATCTGTGACTTCGACCTGGGCAGCGGCATCAAACCTCAACGGGGACTGCTCCCTATCTC
CACCCCGGAGCTGCTCACTCCGTGCGGCTCGGCGGAGTACATGGCCCCGGAGTTAGTGGAGGCCTTCAGCGAGGA
GGCTAGCATCTACGACAAGCGCTGCGACCTGTGGAGCCTGGGCGTCATCTGTATATCCTACTCAGCGGCTACCC
GCCCTTCGTGGGCCGCTGTGGCAGCGACTGCGGCTGGGACCGCGGCGAGGCCTGCCCTGCCCTGCCAGAACATGCT
GTTTGAGAGCATCCAGGAGGGCAAGTACGAGTTCCCCGACAAGGACTGGGCCCACATCTCCTGCGCTGCCAAAGA
CCTCATCTCCAAGCTGCTGGTCCGTGACGCCAAGCAGAGGCTGAGTGCCGCCCAAGTCTGCAACACCCCTGGGT
TCAGGGGTGCGCCCCGGAGAACACCTTGCCCACTCCCATGGTCTGCAGAGGTGGGACAGTCACTTCCTCCTCCC
TCCCCACCCCTGTCGCATCCACGTGCGACCTGGAGGACTGGTCAGAACCCTTACTGTGAATGAGTGAAGATCCTG
GAGGACCCTGGCCCCAGGCCAGCTCCCATCGCTGGGGGACGGTGAACGGCCATGTGTTAATGTTACGATGTTTTT
AAAAGACAAAAAAAAAAAAAAAAACCTCAAAAGTTTTTTTTAAAGTGGGGGAAAAACATCCAAGCACTTTAATTCCA
ATGTACCAGGTGAACCTGACGGAGCTCAGAAGTTTTCTTTACACCAACTGTCAATGCCGGAATTTGTATTCTGT
TTTGTAAGATTTAATAAAAGTCAAAAAACTTGCAAAAAAAAAAAAAA

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FIGURE 5147

MVQKKPAELQGFHRSFKGQNPFELAFSLDQPDHGDSDFGLQCSARPDMPASQPIDIPDAKKRGKKKKRGRATDSF
SGRFEDVYQLQEDVLGEGAHARVQTCINLITSQEYAVKII EKQPGHIRSRVFREVEMLYQCQGHNVLELIEFFE
EEDRFYLVFEKMRGGSILSHIHKRRHFNELEASVVVQDVASALDFLHNKGIAHRDLKPENILCEHPNQVSPVKIC
DFDLGSGIKLNGDCSPISTPELLTPCGSAEYMAPELVEAFSEEASIYDKRCDLWSLGVILYILLSGYPPFVGRCG
SDCGWDRGEACPACQNMLFESI QEGKYEFPDKDWAHISCAAKDLISKLLVRDAKQRLSAAQVLQHPWVQGCAPEN
TLPTPMVLQRWDSHFLLPPHPCRIHVRPGGLVRTVTVNE

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FIGURE 5148A

CCAAGCCTGAGTGTTAATTTAACTCTATGTTGTCCGCCGTGTAAACATCCGAGGTCATTTGTTGCGTTGAATTAT
CTGACCATCCTTTTTTACTGTGACTCTTCCCATTCTCTTTGGCAAGAAGTCCCCTTCTCGCCCCAAACCAGCAA
GGGACTCCCCACCTGGGTCTGTGCCCTGCCCGCGCTGGGGGCCGAGTCCTTGAATGTGGCTTCAGGGGCTCCT
GTCCTGACGGTTGCGTCCGGGGGAGGGGAAGGAAGGGCCGCTGTGCGCAAGGTTTTCTCTCCAGAACCCACAGT
GGGCCGCCGCGATGGCCCTCAAGATGGTGAAGGGCAGCATCGACCGCATGTTGACAAGAATCTGCAGGACTTGG
TCCGCGGCATCCGTAACCACAAGGAGGACGAGGCAAAATACATATCTCAGTGCATTGATGAGATCAAGCAGGAGC
TGAAGCAGGACAACATAGCGGTGAAGGCGAACGCGGTCTGCAAGCTGACGTATTTACAGATGTTGGGATACGACA
TCAGCTGGGCCGCTTCAACATCATAGAAGTGATGAGTGCCCTCAAGTTCACCTTCAAGCGAATTGGCTACCTCG
CTGCTTCCCAGAGCTTTCACGAAGGCACCGACGTCATCATGCTGACCACCAATCAGATCCGTAAGGACTTGAGCA
GCCCCAGCCAGTACGACACAGGTGTTGCACTGACGGGTCTGTCTGCTTCGTCACCCAGACCTTGCCAGAGACC
TGGCAAATGACATCATGACACTGATGTCACACACCAAGCCCTACATCAGGAAGAAGGCTGTGCTGATCATGTACA
AGGTGTTCCGTAAGTACCCCGAGTCGCTGCGCCCTGCCTTTCCCGGCTGAAGGAGAAGCTGGAGGACCCCGACC
CCGGGGTTCAGTCGGCTGCCGTCAATGTCTATCTGCGAGCTGGCCAGACGCAACCCTAAGAACTACCTGTCCCTGG
CCCCGCTCTTTTTCAAGCTGATGACGTCTCCACCAACAACCTGGGTCTCATCAAGATCATCAAGCTGTTCCGTG
CTCTTACTCCTTTGGAACCGCGCTGGGCAAGAAGCTGATCGAGCCCCCTACCAATCTCATCCACAGCACGTCTG
CCATGCTCTCCTCTATGAATGTGTGAACACCGTGATTGCAGTGCTCATCTCGCTGTCTCCGGCATGCCCAACC
ACAGCGCCAGCATCCAGCTTTGTGTTCAAGAAATTAAGGATATTGATCGAGGACTCCGATCAGAAGTTGAAGTACC
TGGGGCTGCTGGCAATGTCCAAGATCCTGAAGACCCACCCCAAGTCCGTGCAGTCCCACAAGGACCTCATCCTGC
AGTGCCCTGGACGACAAGGACGAGTCCATCCGGCTGCGGGCCCTGGACCTGCTCTATGGGATGGTGTCCAAGAAGA
ACCTGATGGAGATCGTGAAGAAGCTGATGACCCACGTAGACAAGGCAGAGGGTACCACCTACCGTGACGAGCTGC
TCACCAAGATCATTGACATCTGCAGCCAGTCCAACTACCAGTACATCACCACCTTCGAGTGGTACATCAGCATCC
TGGTGGAGCTGACCCGGCTGGAGGGCACACGGCACGGCCACCTCATCGCCGCCCAAATGCTGGACGTGGCCATCC
GCGTGAAGGCCATCCGCAAGTTCGCCGTGTCCCAGATGTCTGCGCTGCTTGACAGTGCACACCTGCTGGCCAGCA
GCACCCAGCGGAACGGGATCTGTGAGGTGCTGTACGCTGCCGCCCTGGATCTGCGGGGAGTTCTCAGAGCATCTGC
AGGAACCAACACCACACTTTGGAGGCCATGCTGCGGCCAGAGTACCACGCTGCCAGGCCACATCCAGGCCGTGT
ATGTGCAGAACGTGGTCAAGCTCTACGCCCTCCATCCTGCAGCAGAAGGAGCAGGCCGGGGAGGCAGAGGGCGCTC
AGGCCGTACCCAGCTCATGGTGGACCGGCTGCCCCAGTTTGTGTCAGAGCGCAGACCTGGAGGTGCAGGAGCGGG
CGTCTGTCATCTGTCAGCTGGTCAAGCACATCCAGAAGCTTCAGGCCAAGGACGTGCCTGTGGCAGAGGAGGTCA
GCGCTCTCTTTGCTGGGGAGCTGAACCCAGTGGCCCCAAGGCCCAGAAGAAGGTTCCAGTCCCCGAAGGCCTGG
ACCTGGACGCTTGATCAATGAGCCACTCTCGGACAGCGAGTCAGAGGACGAGAGGCCAGGGCCGTCTTCCACG
AGGAGGAGCAGCGCGTCCCAAGCACCGGCCGTGCGAGGCGGACGAGGAGGAGCTGGCTCGGCGCCGAGAGGCC
GGAAGCAGGAGCAGGCCAACAAACCCCTTCTACATCAAGAGCTCGCCATCGCCACAGAAGCGGTACCAGGACCCC
CGGGCGTGGAGCACATTCCTGTGGTGCAGATTGACCTCTCCGTCCCCTTGAAGGTTCCAGGGCTGCCTATGTGAG
ATCAGTATGTGAAGCTGGAGGAGGAGCGGCGGCACCGGCAGAAGCTGGAGAAGGACAAGAGGAGGAAAAAGAGGA
AGGAGAAGGAGAAGAAGGGCAAGCGCCGCCACAGCTCGCTGCCCACGGAGAGCGACGAGGACATCGCCCCCTGCC
AGCAGGTGGACATCGTCACAGAGGAGATGCCTGAGAATGCTCTGCCACGCGACGAGGATGACAAAGACCCCAACG
ACCCCTACAGGGCTCTGGATATTGACCTGGATAAGCCCTTAGCCGACAGCGAGAACTGCCTATTAGAAACACA
GAAACACCGAGACCTCAAAATCCCTGAGAAGGACGTTCCCATGGTAGAAAAGAAGAGCAAGAAACCCAAAGAAGA
AAGAGAAAAAACACAAAGAGAAAGAGAGAGACAAGGAGAAGAAGGAGAAGGAGAAGAAGAAATCTCCCAAGC
CTAAGAAGAAGAAACACAGGAAGGAGAAGGAGGACGACCAAGGCAAGAAGAAGTCCAAGAAGCAGCCTCCAG
GCACCGAGGAGGACGCGGGGAGCCGCTGCAGAATGGCGCGCCAGAGGAGGACAGCTCCCGCTGAGTCCAGCT
ACTCCCTCCTCGCTGAAAATTCCTATGTTAAATGACCTGTGACATCCGGGGCAGTCTGACGAGGAGGACCCAGG
TCACTGTGGCCATCGTGCTGGAGAACAGGAGCAGCAGCATCCTCAAGGGCATGGAGCTCAGCGTGCTGGACTCAC
TCAATGCCAGGATGGCCCCGGCCGAGGGCTCCTCCGTCCACGATGGCGTCCCGTGCCTTTCCAGCTGCCCCAG
GCGTCTCCAACGAAGCCAGTATGTGTTACCATCCAGAGCATCGTCATGGCGAGAAGCTCAAGGGGACCCGTGT
CCTTCATTGCCAAGAATGACGAGGGTGGGACCCACGAGAAGCTGGACTTCAGGCTGCACTTCAGCTGCAGCTCCT
ACTTGATCACCACCTCCCTGCTACAGTGACGCTTTGCTAAGTTGCTGGAGTCTGGGGACTTGAGCATGAGCTCAA
TCAAAGTCGATGGCATTCCGGATGTCCTTCCAGAATCTTCTGGCGAAGATCTGTTTTACCACCATTTTTCCGTTG

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FIGURE 5148B

TGGAGCGAGTGGACTCCTGCGCCTCCATGTACAGCCGCTCCATCCAGGGCCACCATGTCTGCCTCCTGGTGAAAA
AGGGTGAGAACTCTGTCTCAGTCGACGGGAAGTGCACTGACTCCACGCTACTGAGCAACTTGTTAGAAGAGATGA
AGGCGACGCTGGCCAAGTGTTGAGAGCTGCCTGCGAGCCCCGCACCACCCCGCGGAGCACGTACCCAGGGACCGC
AGCCCTGACGTGTCTCGCCTCTCCTCAGTCGTGTGTACTGTACCCAAGCCTGAGTGTTAATTTAACTCTATGTTG
TCCGCCGTGTAGACATCCGAGGTCATTTGTTGCGTTGAATTATCTGACCATCCTTTTTTACTGTGACTCTTCCCA
TTCTCTTTGGCAAGAAGTCCCTTCTCGCCCCAAACCAGCAAGGGACTCCCCACCTGGGTCTGTGCCCTGCC
CGCGCTGGGGGCCGAGTCCTTGAATGTGGCTTCAGGGGCTCCTGTCTGGGCCAGGGCCTGATGGGCACCACGTG
AGGGGCACTTGTTGGACAGGGCGGGGCTGACGTGGCTCCTCTGGGGTCGCTGCTTTTGACCCAAAGGTCCTGA
CGGTTGCGTCCGGGGGAGGGGAAGGAAGGGCCGCTGTCGCCAAGGTTTCTCTCCAGAACCCACAGTGGGAAAG
CGGTCTTGCCAGGCGTTGTCCATTGTCACTGTGCTCGTGGGCTGGTGACTGGGTCTTGGGATCCCAGGCCACGCG
CCAGCCAGGCTGTGGGCAGGGCGGGGCCAGGGACGCCAAAGAGAGGTTGCAGTCAGAACCGTGGACGGGGTGGGT
TGAGGCCTCTCTGCCACCCGTCTTCTGGTCAGCAGAAGTGCATCTCGGCTTGGGTTTGGGGTGGTCCGCATCCC
CTGCTTGCCACTATGCGCACCAAGGTTTCCCCACATCCTTCCCAGCACCTTAGGAAGGCCAGGCAGGGCCTGG
AAGCAGCGGACCTGGGCTGTTCTGTGTTGAAGGAGTGTGCCAGTGCCCTTGGGCAGGACCTGTGAGAGCCACCT
CACAGGCAGAGCCCCCACCAGGCAGGGCAAGGAGACTCCGCTCACTCCCCACGGCCAGCGTGGGCACAGGACTGA
CCCTTCTTCAGAGATAATGACATTTTATCTTCTCTTTTGATGAAAAGTGTCACTTTAGCATGTAATCCATTACA
GAATCCCATGCAGTGATTCCAGGATTTGAAATTGTATGATGTGTACATAAGAATTTATTTGCTATCGACATTCC
CGTATAAAGAGAGAGACATATCACGCTGCTGTCATGATTTTGTGTCAAGATGATCCAATAAAGTTGTAAACAGG

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FIGURE 5149

MALKMVKGSIDRMFDKNLQDLVRGIRNHKEDEAKYISQCIDEIKQELKQDNIAVKANAVCKLTYLQMLGYDISWA
AFNIIIEVMSASKFTFKRIGYLAASQSFHEGTDVIMLTNNQIRKDLSSPSQYDTGVALTGLSCFVTPDLARDLAND
IMTLMSTKPYIRKKAVLIMYKVLKYPESLRPAFPRLKEKLEDPDPGVQSAAVNVICELARRNPKNYLSLAPLF
FKLMTSSTNNWVLIKI IKLFGALTPLEPRLGKKLIEPLTNLIHSTSAMSLLYECVNTVIAVLISLSSGMPNHSAS
IQLCVQKLRILIEDSDQNLKYLGLLAMSKILKTHPKSVQSHKDLILQCLDDKDESIRLRALDILLYGMVSKKNLME
IVKKLMTHVDKAEGTTYRDELLTKIIDICSQSNYQYITNFEWYISILVELTRLEGTRHGHLIAAQMLDVAIRVKA
IRKFVQSQMSALLDSAHLLASSTQRNGICEVLYAAAWICGEFSEHLQEPHHTLEAMLRRPVTTLPGHIQAVYVQN
VVKLYASILQQKEQAGEAEGAQAVTQLMVDRLPQFVQSADLEVQERASCILQLVKHIQKLQAKDVPVAEEVSALF
AGELNPVAPKAQKKVPVPEGLDLDAWINEPLSDSESEDERPRAVFHEEEQRRPKHRPSEADEEEELARRREARKQE
QANNPFYIKSSSPQKRYQDTPGVEHIPVVQIDLSVPLKVPGLPMSDQYVKLEEERRHRQKLEKDKRRKKRKEKE
KKGKRRHSSLPTESDEDIAPAQQVDIVTEEMPENALPSDEDDKDPNDPYRALDIDLKPLADSEKLP IQKHNTE
TSKSPEKDVPMVEKKSKPKKKKEKKHKEKERDKEKKKEKEKKKSPKPKKKKHRKEKEERTKGKKKSKKQPPGSEE
AAGEPVQNGAPEEEQLPPESSYSLAENSYVKMTCDIRGSLQEDSQVTVAIVLENRSSSILKGMELSVLDSLNR
MARPQGS SVHDGVPVPFQLPPGVSNEAQYVFTIQSIVMAQKLKGTLSFIAKNDEGATHEKLDLFRHFSCSSYLIT
TPCYSDAFAKLLESGDLSMSSIKVDGIRMSFQNLAKICFHHHFSVVERVDSCASMYSRSIQGHVCLLVKKGEN
SVSVDGKCDSTLLSNLLEEMKATLAKC

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FIGURE 5150A

GCGGCCGTCCTGACTGCTGCGCCATATCCTGCAGCAGGTCTACAACCACTCGGTGACCGACCCCGAGAAGCT
CAACAACACTACGAGCCCTTCTCCCCGAGGTGTACGGGGAGACCTCCTTCGACCTGGTGGCCAGATGATTGATGA
GATCAAGATGACCGACGACGACCTGTTTGTGGACTTGGGGAGCGGTGTGGGCCAGGTGCTGCTCCAGGTTGCTGC
TGCCACCAACTGCAAACATCACTATGGCGTCGAGAAAGCAGACATCCCGGCCAAGTATGCGGAGACCATGGACCG
CGAGTTCAGGAAGTGGATGAAATGGTATGGAAAAAGCATGCAGAATACACATTGGAGAGAGGCGATTTCTCTC
AGAAGAGTGGAGGGAGCGAATCGCCAACACGAGTGTATATTTGTGAATAATTTTGCCTTTGGTCTGAGGTGGA
TCACCAGCTGAAGGAGCGGTTTGCAAACATGAAGGAAGGTGGCAGAATCGTGTCTCGAAACCCCTTTGCACCTCT
GAACTTCAGAATAAACAGTAGAACTTGAGTGACATCGGCACCATCATGCGCGTGGTGGAGCTCTCGCCCTGAA
GGGCTCGGTGTCTGTGGACGGGAAGCCAGTCTCTACTACCTGCACACTATCGACCGCACCATACTTGAAAACTA
TTTTTCTAGTCTGAAAAACCCAAAACCTCAGGGAGGAACAGGAGGCAGCCCGCGCCGCGCCAGCAGCGCGAGAGCAA
GAGCAACGCGGCCACGCCCACTAAGGGCCAGAGGGCAAGGTGGCCGGCCCCCGCCGACGCCCCCATGGACTCTGG
TGCTGAGGAAGAGAAGGCGGGAGCAGCCACCGTGAAGAAGCCGTCTCCCTCCAAAGCCCCGAAGAAGAAGCTAAA
CAAGAAGGGGAGGAAGATGGCTGGCCGCAAGCGCGGGCGCCCCAAGAAGATGAACACTGCGAACCCCGAGCGGAA
GCCCCAAGAAGAACCAACTGCACCTGGATGCCCTGCACGCTCAGACCGTGTCTCAGACGGCGGCTCTCTACCCCA
GGATGCCCTACAGATCCCTCAGAGCCGTTCTACCAGCTACCTCCGAGCGTGCAGCGGCACTCCCCCAACCCGCT
GCTGGTGGCGCCACCCCGCCCGCGCTGCAGAAGCTTCTAGAGTCCCTCAAGATCCAGTACCTGCAGTTCCTGGC
ATACACAAAGACCCCCAGTACAAGGCCAGCTGCAGGAGCTGCTGGGCCAGGAGAAGGAGAAGAAGCGCCAGCT
CCTGGGTGCGGCTCAGCAGCTCCTCAGCCACTGCCAGGCCAGAAAGGAGGAGATCAGGAGGCTGTTTCAGCAAAA
ATTGGATGAGCTGGGTGTGAAGGCGCTGACCTACAACGACCTGATTCAAGCGCAGAAGGAGATCTCCGCCCATAA
CCAGCAGCTGCGGGAGCAGTCGGAGCAGCTGGAGCAGGACAACCGCGCGCTCCGCGGCCAGAGCTTGAGCTGCT
CAAGGCTCGCTGCGAGGAGCTGCAGCTGGACTGGGCCACGCTGTGCTGGAGAAGCTGTTGAAGGAGAAGCAGGC
CCTGAAGAGCCAGATCTCGGAGAAGCAGAGGCACTGCCTGGAGCTGCAGATCAGCATTGTGGAGCTAGAGAAGAG
CCAGCGGCAGCAGGAGCTCCTGCAGCTCAAGTCTGTGTGCCGCTGACGACGCCCTGTCCCTGCACCTGCGTGG
GAAGGGCGCCCTGGGCCGCGAGCTGGAGCCTGACGCCAGCCGGCTGCACCTGGAGCTGGACTGCACCAAGTTCTC
GCTGCCCTCACTTGAGCAGCATGAGCCCGAGCTCTCCATGAACGGCCAGGCTGCTGGCTATGAGCTCTGCGGTGT
GCTGAGCCGGCCCTTCGTGGAAGCAGAACACGCCCCAGTACCTGGCCTCACCCTGGACCAGGAGGTGGTGCCTG
TACCCTAGCCACGTGCGCCGGCCGCGCTGGAGAAGCTGTCTGGCCTAGCCGACCCGACTACACTAGGCTGTC
CCCGGCCAAGATTGTGCTGAGGCGGCACCTGAGCCAGGACCACACGGTGGCCGGCAGGCCGGCTGCCAGTGAGCT
GCATTGAGAGCTGAGCACACCAAGGAGAAGCGCCTTCCCTACCAGAGCCCCAGCGTGCCTGGCAGCATGAAGCT
GAGCCCTCAGGACCCGCGGCCCTGTCCCTGGGGCCTTGACGCTTGCTGGAGAGAAGAGCAGTGAGAAGGGCCT
GAGAGAGCGCGCTACGGCAGCAGCGGGGAGCTCATCACCAGCCTGCCCATCAGCATCCCGCTCAGCACCCTGCA
GCCAACAAGCTCCCGGTGAGCATTCCTTGCCAGCGTGGTGTGCTGCCAGCCGCGCCGAGAGGGCGAGGAGCAC
CCCCAGTCCCGTGCTGCAGCCCCGTGACCCCTCGTCCACACTTGAAAAGCAGATTGGTGTAAATGCCACGGTGC
TGGGAGCAGAAGCCTTGCCCTGGCCCCGAGGCTTCTCCTACGCTGGCTCGGTGGCCATCAGCGGGGCTTGGC
GGGAGCCCCGGCTCTCTCACACCTGGAGCCGAGCCGGCCACCTTGGATGAGTCTCCAGCTCTGGGAGCCTTTT
TGCCACCGTGGGGTCCCGCAGCTCCAGCCACAGCACCCCTGCTGCTGGCACAGCCCCGGAACCTCGCTTCTGCT
CTCTCCCGCCACCAGCTCTCTCCAGTCCCCGGCTTGGTGGGGCCGCCCAGGGCCCGTTGCCCGAGGCCAGCAA
GGGAGACCTGCCCTCCGATTCCGGCTTCTCAGATCCTGAGAGTGAAGCCAAGAGGAGGATTGTGTTACCATCAC
CACTGGTGCGGGCAGTGCCAAGCAGTCGCCCTCCAGCAAGCAGACCCCTGACCGCCAGCGCCCTGGGGAGTG
TGTCCGAGCCACGGGCAGGACAGTCGCAAGCGCGGCCGGAAGCAGCATCTGCGGGGACGCCCCAGCTTGAG
CGCAGGCGTGTCCCCAAGCGCCGAGCCCTGCCGTCCGTGCTGGCTTTTTCACACAGCTTTCGGGGCTTCCCT
CAACCTCAACTCCATGGTCAAGTAACTCAACAGCCCTGGAGATTACAGCCATCTCGTCCCGGAGACCTCCCT
GAAGAGCTCCCTGTGCCCTACCAGGACCAGACCAGCCCCCGTGTCAAGAAGGAGCGGCTCTGAGCCAGAC
CAATGGGGCACACTACTCCCCACTCACCTCAGACGAGGAGCCAGGCTCTGAGGACGAGCCAGCAGTGCTCGAAT
TGAGAGAAAAATTGCAACAATCTCCTTAGAAAGCAAATCTCCCCGAAAACCTTGAAAATGGTGGTGGCTTGGC
GGGAAGGAAGCCCGCGCCCGCGGCGAGCCAGTCAATAGCAGCAAGTGGAAGTCCACCTTCTCGCCCATCTCCGA
CATCGGCTGGCCAAGTCGGCGGACAGCCGCTGCAGGCCAGCTCCGCCCTCAGCCAGAATCCCTGTTACGTT
CCGGCCCGCCCTGGAGGAGCCCTCTGCCGATGCCAAGCTGGCGCTCACCCAGGAAAGGCTTTCCCGGCTCCCT

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FIGURE 5150B

GTCGGGGGCTGACGGACTCAGCCCGGGCACCAACCCTGCCAACGGCTGCACCTTCGGCGGGGGCCTGGCCGCGGA
CCTGAGTTTACACAGCTTCAGTGATGGTGCTTCTCTTCCCCACAAGGGCCCCGAGGCGGCGGCCTGAGCTCCCC
GCTGAGCTTCCCCTCGCAGCGCGGCAAGGAGGGCTCGGACGCCAACCCCTTCTGAGCAAGAGGCAGCTGGACGG
CCTGGCTGGGCTGAAGGGCGAGGGCAGCCGCGGCAAGGAGGCAGGGGAGGGCGGCCTACCGCTGTGCGGGCCCAC
GGACAAGACCCCACTGCTGAGCGGCAAGGCCGCCAAGGCCCGGGACCGCGAGGTGCACCTCAAGAATGGCCACAA
CCTCTTCATCTCTGCGGCGGCCGTGCCTCCCGGAAGCCTCCTCAGCGGCCCCGGCCTGGCCCCGGCGGCGTCTC
CGCAGGCGGCGCGGCGTCTCCGCCCAGACGCACCGGTCTTCTGGGCCCTTCCCGCCGGGACCGCAGTTTCG
GCTCGGCCCCATGTCCCTGCAGGCCAACCTCGGCTCCGTGGCCGGCTCCTCCGTGCTGCAGTCGTGTTACAGTC
TGTGCCGGCCGCCGAGGCCTGGTGCACGTGTCTGTCGCTGCCACCAGACTGACCAACTGCACGCCATGGGCAG
CTTTTCCGGGGTGGCAGGCGGCACAGTTGGAGGTAAGTAGGATTTCTACCTCAACCGCGAGACCTATGCAAGGAC
GGTGTGGACCAACTCGCGCCCGCGGCATGGTGGCCGCCGGCTGCCGGGCTCCACCCCTGGACGGCAGAGGCAA
GGACGGACGGGAGCTCCACTGTGAATCGGCGGCACGCGCCGAGGAGGTGGGACTGGTCCAGTTTGTACTGTCTG
ATAGTTTTAGATAAAGTATTTATCATTTTTTAAAAAGTATAAACAAATTCGACTTATTTTATTCCATCTAAGTGG
TAAAAGGCAACTTATTGAGAAATATAAATATCTATATATGAGAGCTCTATATAAAGACACGTGTCTGCAGGGCGG
GCCCCGCCAGCGGATTGCCCCACAGCCTGCCCCGGTGCTATCTCGTCCCCAGGCCCCGCGCTGCCCTCCACCCGCTTG
GTGCTGACTAGACGCTGACAACGCCGAACCCCGTTCTCGGAAACGCCGCCCGGCCGCTCCCCGACGCGCTGCT
CCCGTACCAAAGGCAGGCCCCGTGCGCCACCACATTCCTCGGAGGCCCTCCCCGCGGCTGAGCCCCCTTCTGAGCGC
CCTGGCGCCTGCCCTGAGCTCTTACCTTTACCCCGGCACTGTGAACCCCAAGACTGTTACCCCTCCGGGGCGTG
GGTTGCGCCCTTGATGTGAAGGGGCTGCGCGGTGACGCAGCTGGCCATGTGCTGCGCGATGGTGTGTGAGGA
CGGCGCGGGCACGTTGAACAAGTGCAATTTACTTTTGTATTTCTCGGCTGTCCATGGCTCGCAGCATGCCCTGCGA
TGCGGGGCAGGCCTGTCGTGGGTCCCTTGGTGTTCGTACAGGAGAGAGTCACACTAATGAGTGGCAGTATTTT
ATAGAGATGTGATGAGAATTTATAAATTTATAGATTTGACAGCTTTTATTTTATAGATGGTATAATGCACAGTGA
AGAGGAAAGAAAAGCGAGGGGAAAAAACCTTATTTATTCAAACAGTGCACAAAATGGCCCCAGCGTCAGCCCCGA
CCCTAGACCCCTCAGTTGCAGCTCCCAGCAGCCAGACAGAGCTGCCGGCGCCCCCTGCCCTGCCCCACATCCCTTC
CTGTGAGGGCCACGCTGGCACCCATCCCTTGGAGCCTGTGCTGGTTCTCCAGCTGCTGTGGGTGTGCTGGGGC
CAGGGTGCAGTGTGAAACCTGGCCTCTCTGGCCCTAGGCCCCAGGGTGACGTGCGCCCCCACTCTGCAGCCTT
GGCGGGTGCCTGGGACTGGGTGTGGAAGGAGAGGAGCTGAGGCCGGGGTGTAGCAGGCAGGCAGGGCCACTCCAG
TGCTTCTGGAGCCCTGAGCAGTCAGGGCCTGGGTGTCTGAGCAGTGGTGGCTCTGTGCCCTCCCTGGAGGATGG
GATCTGGGA

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FIGURE 5151

MIDEIKMTDDDLFVDLGSVGQVVLQVAAATNCKHHYGVEKADIPAKYAETMDREFRKWMKWYGKKHAEYTLERG
DFLSEEWREIRIANTSVIFVNNFAFGPEVDHQLKERFANMKEGGRIVSSKPFAPLNFRINSRNLSDIGTIMRVVEL
SPLKGSVSWTGKPVSYLHTIDRTILENYFSSLKNPKLREEQEAAARRRQQRESKSNAATPTKGPEGKVAGPADAP
MDSGAEEEEKAGAATVKKPSPSKARKKKLNKKGRKMAGRKRGRPKKMNTANPERKPKKNQ TALDALHAQTVSQTA
SSPQDAYRSPHSPFYQLPPSVQRHSPNPLLVAPTTPALQKLLESFKIQYLQFLAYTKTPQYKASLQELLGQEK
NAQLLGAAQQLLSHCQAQKEEIRRLFQQKLDDELGVKALTYNDLIQAQKEISAHNQQLREQSEQLEQDNRALRGQS
LQLLKARCEELQLDWATLSLEKLLKEKQALKSQISEKQRHCLELQISIVELEKSQRQQELLQLKSCVPPDDALS
HLRGKGALGRELEPDASRLHLELDCTKFSPLPHLSSMSPELSMNGQAAGYELCGVLSRPSKQNTPOYLASPLDQE
VVPCTPSHVGRPRLEKLSGLAAPDYTRLSPAKIVLRRHLSQDHTVPGRPAASELHSRAEHTKENGLPYQSPSVPG
SMKLSPODPRPLSPGALQLAGEKSSEKGLRERAYGSSGELITSLPISIPSTVQPNKLPVSIPLASVVLPSRAER
ARSTPSPVLQPRDPSSTLEKQIGANAHGAGSRSLALAPAGFSYAGSVAISGALAGSPASLTPGAEPATLDESSSS
GSLFATVGSRSSTPQHPLLLAQPRNSLPASPAHQLS SSPRLGGAAQGPLPEASKGDLPSDSGFSDPSEAKRRIV
FTITTGAGSAKQSPSSKHSPLTASARGDCVPSHGQDSRRRGRRKRASAGTPSLSAGVSPKRRALPSVAGLFTQPS
GSPLNLNSMVSINQPLEITAISSPETSLSKSSPVYQDHDQPPVLKKERPLSQTNGAHYSPLTSDEEPGSEDEPS
SARIERKIATISLESKSPPKTLENGGGLAGRKPAPAGEPVNSSKWKSTFSPI SDIGLAKSADSP LQASSALSQNS
LFTFRPALEEPSADAKLAAHPRKGFPGSLSGADGLSPGTNPANGCTFGGGLAADLSLHSFSDGASLPHKGPEAAG
LSSPLSFPSQRGKEGSDANPFLSKRQLDGLAGLKGESRGKEAGEGGLPLCGPTDKTPLL SGKA AKARDREVDLK
NGHNLFISAAVPPGSLLSGPG LAPAASSAGGAASSAQTHRSFLGPFPPGPFQFALGPMSLQANLGSVAGSSVLQS
LFSSVPAAGLVHVSSAATRLTNSHAMGSFSGVAGGTVGGVFNHAVPSASAHFPGARVGRGAACGSATLGPSPLQ
AAASASASSFQAPASVETRPPPPPPPPPPPLPPPAHLGRSPAGFPVLHAPPPPNAALEPPPTLLASNPEPALLQS
LASLPPNQAFLPPTSAAASLPPANASLSIKLTS LPHKGARPSFTVHHQPLPRLALAAQAAPGIPQASATGPSAVWVS
LGMPPPYAAHLSGVKPR

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FIGURE 5152

GGCACGAGGCTTTCTTTGCCCGCCGTTCCGCCAAACGAAGTCGTGGAGGTGGCGAAACGAGGAGGAGATAACGCGG
CCTTGGGCTCTGGTGTCTCCAGTCTGCTAAAGCCCTAAGGCCATCACCATCGACTTCCAGCATCGCCCCGGGGG
CAAGACCGGGAGCGGGGGCGTGGCTCCTCCTCCGAGAGCAACCGTGACCGCAGGGAGCGCCTCCGGCAGCTGGC
CCTGGAGACCATCGACATCAACAAGGACCCGTACTTCATGAAGAACCACCTGGGCTCCTATGAATGCAAACTCTG
CCTGACACTTCACAACAATGAGGGGAGCTACCTGGCACATACGCAGGGGAAGAAGCACCAGACCAACCTGGCCCG
GCGAGCAGCCAAGGAGGCCAAGGAGGCCCTGCCAGCCCGCGCTGAGAAGGTCAAGGTGGAGGTGAAGAAGTT
TGTGAAGATCGGCCGCCCGGGCTACAAAGTGACCAAGCAGAGAGACTCGGAGATGGGCCAGCAGAGCCTCCTCTT
CCAGATTGACTACCCTGAGATCGCCGAGGGCATCATGCCACGTCACCGCTTCATGTCTGCGTACGAGCAGAGGAT
CGAGCCTCCGGACCGGCGCTGGCAGTACCTGCTCATGGCCGCCGAGCCCTACGAGACCATTGCCTTCAAGGTGCC
GAGCAGAGAGATCGACAAGGCGGAGGGCAAGTTCTGGACACACTGGAACCGGGAGACCAAGCAGTTCTTCTCCA
GTTCCACTTTAAGATGGAGAAGCCCCGGCTCCACCCAGCCTCCCTGCTGGCCCCCTGGGGTGAAGCGGCCTCC
ACCCCGCTGATGAACGGTCTGCCCCCTCGGCCACCGCTGCCTGAGTCTTTGCCACCGCCCCCGCCAGGAGGCCT
GCCTCTGCCACCCATGCCCCCACAGGGCCTGCGCCCTCAGGGCCCCCGGGACCACCCAGCTACCCCGCCAGC
TCCAGGGGTCCACCCCGGGCCCAAGTGGTGCATCCCCCTGCATCTGGGGTCCATCCCCAGCTCCTGGCGTCCA
CCCCCAGCTCCTGGCGTCCATCCCCAGCCCTGGGGTCCACCCACCAACCTCTGGGGTCCACCCCGAGCTCC
TGGAGTCCACCCTCCAGCCCCGGGGTTCACCCACCAGCCCCCGGAGTCCACCCACCAGCCCTGGGGTTCACCC
ACCAGCCCCAGGGGTCCATCCTCCCCCATCAGCGGGGTTCACCCAGGCCCCGGGGGTGCACCCAGCAGCCCC
CGCCGTTACCCCTCAGGCCCCAGGGGTGCACCCACCAGCCCCAGGGATGCACCTCAGGCCCGGGGGTCCACCC
CCAACCTCCCGGGGTCCATCCGTGGCTCCTGGGGTCCACCCTCAGCCTCCGGGAGTTACCCCTCAAATCCTGG
GGTGCACCCCCCAACTCCCATGCCCCAATGCTGAGGCCCCACTTCCCTCCGAAGGCCAGGGAACATACTCC
CCCTCCCCCAACCAACTGAGAAGCTGCTCCTCCCCAGCAAGCCAGCGCCAGGTGCTCTTGCTTTTCCCACT
GAGAGAAGGCTGCTCTTTGTACTGCCCCCGCTCATTAACAGCCTCCCCCAAAAAAAAAAAAAAAAAAAAA

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FIGURE 5153

MDFQHRPGGKTGSGGVASSSESNRDRRERLRQLALETIDINKDPYFMKNHLGSYECKLCLTLHNNEGSYLAHTQG
KKHQTNLARRAAKEAKEAPAPQPAPEKVKVEVKKFVKIGRPGYKVTQORDSEMGQQSLLFQIDYPEIAEGIMPRHR
FMSAYEQRIEPPDRRWQYLLMAAEPYETIAFKVPSREIDKAEGKFWTHWNRETKQFFLQFHFKMEKPPAPPSP
GPPGVKRPPPLMNGLP RPPLPESLPPPPPGGLPLPPMPPTGPAPSGPPGPPQLPPPAPGVHPPAPVVHPPASG
VHPPAPGVHPPAPGVHPPAPGVHPPTSGVHPPAPGVHPPAPGVHPPAPGVHPPAPGVHPPAPGVHPPSAGVHPQ
APGVHPPAAPAVHPQAPGVHPPAPGMHPQAPGVHPQPPGVHPSAPGVHPQPPGVHPSNPGVHPPTMPMPMLRPPLP
SEGPGNIPPPPPTN

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FIGURE 5154

TGCGAACGGCGAGCAGCGGCGGCGGCGGAGAGACGCAGCGGAGGTTTTCTGGTTTCGGACCCAGCGGCCGG
ATGGTGAAATCCTCCCTGCAGCGGATCCTCAATAGCCACTGCTTCGCCAGAGAGAAGGAAGGGGATAAACCCAGC
GCCACCATCCACGCCAGCCGCACCATGCCGCTCCTTAGCCTGCACAGCCGCGGCGGCAGCAGCAGTGAGAGTTCC
AGGGTCTCCCTCCACTGCTGTAGTAACCCGGGTCCGGGGCCTCGGTGGTGCTCCTGATGCCCTCACCCACCCCT
GAAGATCCCAGGTGGGCGAGGGAATAGTCAGAGGGATCACAATCTTTCAGCTAACTATTCTACTCCGATGATCG
GCTGAATGTAACAGAGGAACCTAACGTCCAACGACAAGACGAGGATTCTCAACGTCCAGTCCAGGCTCACAGACGC
CAAACGCATTAACTGGCGAACAGTGCTGAGTGGCGGCAGCCTCTACATCGAGATCCCGGGCGGCGGCTGCCCCGA
GGGGAGCAAGGACAGCTTTGCAGTTCTCCTGGAGTTCGCTGAGGAGCAGCTGCGAGCCGACCATGTCTTCATTG
CTTCCACAAGAACCGCGAGGACAGAGCCGCCTTGCTCCGAACCTTCAGCTTTTTGGGGCTTTGAGATTGTGAGACC
GGGGCATCCCCTTGTCCCCAAGAGACCCGACGCTTGCTTCATGGCCTACACGTTTCGAGAGAGAGTCTTCGGGAGA
GGAGGAGGAGTAGGGCCGCCTCGGGGCTGGGCATCCGGCCCCCTGGGGCCACCCCTTGTCAGCCGGGTGGGTAGGA
ACCGTAGACTCGCTCATCTCGCCTGGGTTTGTCCGCATGTTGTAATCGTGCAAATAAACGCTCACTCCGAATTAG
CGGTGTATTTCTTGAAGTTTAATATTGTGTTTGTGATACTGAAGTATTTGCTTTAATTCTAAATAAAAATTTATA
TTTTACTTTTT

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FIGURE 5155

ACCATTCTGATGTTGGAGCGGCCTCGGTCCGGTTGACTTTGCGGACATCGAGGGCGGGCTTCGGCTCCGATTTTCGG
GGGCTCCGGCAGCGGGAAGCTGGACCCAGGGCTCATAATGGAGCAGGTGAAAGTGCAGATCGCCGTGGCCAACGC
GCAGGAGCTGCTGCAGAGGATGACGGACAAGTGTTTCCGGAAGTGATAGGGAAACCTGGGGGCTCCCTGGACAA
CTCCGAGCAGAAGTGCATCGCCATGTGCATGGACCGCTACATGGACGCCTGGAACACCGTGTCTCGCGCCTACAA
CTCGCGGCTGCAGCGGGAACGAGCCAACATGTGACCGGCGAGCGCGGGCCACCCACCCCTGTTTCATTTCATAAA
CGTGCTTTGAGAGGCGGGGTCCGCATGTACGTACTGCCTGCCCAGGGGCTTAGGAGGGTGGCACCGGTGCTGGGAC
ACACGGGACTGTGTCTCGCCACCCCCGCCCTGCCCCCTGCCAGCCAGTGCAGCTTGGATCTCGGGGGTGTGGG
GCCCTGTGCCTTCCTGAAGTGCTGGCAGCCAGTGGCACCTCCTTCAGGCCTTTGGGGTATTCCCCTAGTGTGCC
CAAGTCAGCCTCATATTCTGGGCGGACAGCTTGTCTGGACTTCGGAGTTGGGGGTGGTCAGACACCACAGGAGCT
GTCACCTCCTGCGGATGGGCAAATAAATTGGTGGAGGACGGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAA

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FIGURE 5156

MEGGFGSDFGGSGSGKLDPLIMEQVKVQI AVANAQELLQRM TDKCFRKCIGKPGGS LDNSEQKCIAMCMDRYMD
AWNTVSRAYNSRLQRERANM

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FIGURE 5157

GGCACGAGGCCTCGTGCCGTTTTAATGGATATTTATTTTTTACATTGGTCAGTACACAGGTCAGGAGCTCACGC
CAGGGCCTTGAGGACAGGCTGACCCTCCTCCCCGGGGTGGCGTGGGGCTGGGGCACCTCCGACGGCAGAGCCTC
CTTCAGAAAAGTGCAGCTCAAGTCTTAAAGACACCAAACTGAGCCATGGGCACGCGCCGTCTCCGGGGCCATGGCG
TTCAGTGCAGGGCGGGGGCGGCACCGCTCCCTGTGACTGCATCCCGCTCCCTGGGGACCTGCCTGTGGCAGGA
AGGAATGGGGGGCCCCAGCCCCAGGCCGGGAAGGAGCCAGCGGCCGACAAAGCAGAAACACCCGCTGCTCCACGT
AGCCCTGCTCGCTGTCTTGTCTCAGAAGTCCCGTCCCATGTAGATAGAGGGGGGCGCATCTTACCAAAGCA
TTTCTCCTGGAGGCTACGCCGCTGTGCTCCAGTCAGGCGGCTGGTAGGGAGCTTTGCCTGCCCCGGGGATACC
CTCTGCCAGCCGCTGGAAGTGGGAATGCTGGCGACAGACTGTGTCTCTTTCCACCTTCATAGCAGGAATCACC
CGGACCCGACTGGCTGGGCTTCGTGCTAGCGAGGGTTCTGGGGGTGGGTCTTGGTGATCTTGTCTATGGGGAGT
CTGCAGTGGTCTCAGCCACATCCTATGTATTTTGGCTCTGGAGGAGCAAAGCTGTATCCTGGAGTTGGTCTGTGA
TTTGCCGACAGCCTTGACAGGCTGGGCTCAGGGACAAAGTCCCCCCCCAAACCCGAGGTCTCATGTCCAGACGC
TGCCAGTCTCTGTCTGAAAACAGCACGCCCCAGGCCACAGAACCCCCACCCCTACATTTGCCTTGGGTGGAGC
TGGGGGTGGTCTTAGGACTGCGGGTGCCCTTAGCTGAAGGGGGTGGGGAGAAGCGTGGACTGGGCAGCCTGTGGG
TAATTGGAGGTTTCATTGAGAATTGAGTCTTTGGAAACACTAAGAAAATCAAATTTTTAAAGTTATTTATGGCCT
GGGAAACAATTTGCATTTGTCCCCAAATACGCTTAGCTGTGTGCCGCTTAGAACGATGCGAAACCATCCCTCTGT
GTAAGCCCGTGCCGTGTGACTCGAAGCCTAGCGCCCTCCCTGCGAAGCATCAGACGCCACCCAGCCCTGGGGGGA
GGCCACGCTGCTGGACCAACGCGGGTTCTGGGGTGACAGCGCCAGGTTAACGCTGAAGCCTGCCCCGCTGAG
CCCAGGAGCCGGGAGGCCGTGCGGGCTGACCCAGAATCCGATCATGCACCTGTCTCATGCCAGCGGCTTTGGCTG
GGGTTGGTCTGAAGCCTGCACGCGGCAGTTCTTTGTAAAGATCTGAGGGACTCCTCAGTCCTGGGGCGTCGCCG
CCTGCAGCCTCTTCCAAGCCCTGCGTCCAGCGAGCGTCACAGCACAACTGCAAAAACGGAGCTGGGCTGCAGCT
GGGGCTGGCATGGACTTTCAATTCAGAGATTCGGTTTTTAAAGAGATGCATGCCTAATGTGTTCTTTTTTTTTTC
CAATGATTTGTAATATACATTTTATGACTGGAACTTTTTTGTACAACACTCCAATAAACATTTTGAATTTAAAA
AAAAAAAAAAAAAA

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FIGURE 5158

MAFTAGRGRHRSPVTASRLPGDLPVAGRNGGPQPQAGKEPAADKAETPAAPRSPCSLSLLSEVPVPCR

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FIGURE 5159

CGTCGGACTACCGTTGGTTTTCCGCAACTTCCTGGATTATCCTCGCCAAGGACTTTGCAATATATTTTTCCGCCTT
TTCTGGAAGGATTTTCGCTGCTTCCCGAAGGTCTTGGACGAGCGCTCTAGCTCTGTGGGAAGGTTTTGGGCTCTCT
GGCTCGGATTTTTCGCAATTTCTCCCTGGGGACTGCCGTGGAGCCGCATCCACTGTGGATTATAATTGCAACATGAC
GCTGGAAGAGCTCGTGGCGTGCGACAACGCGGCGCAGAAGATGCAGACGGTGACCGCCGCGGTGGAGGAGCTTTT
GGTGGCCGCTCAGCGCCAGGATCGCCTCACAGTGGGGGTGTACGAGTCGGCCAAGTTGATGAATGTGGACCCAGA
CAGCGTGGTCTCTGCCTCTTGGCCATTGACGAGGAGGAGGAGGATGACATCGCCCTGCAAATCCACTTCACGCT
CATCCAGTCCTTCTGCTGTGACAACGACATCAACATCGTGCGGGTGTGCGGCATGCAGCGCCTGGCGCAGCTCCT
GGGAGAGCCGCGGAGACCCAGGGCACCACCGAGGCCCGAGACCTGCATTGTCTCCTGGTCACGAACCCTCACAC
GGACGCCTGGAAGAGCCACGGCTTGGTGGAGGTGGCCAGCTACTGCGAAGAAAGCCGGGGCAACAACCAGTGGGT
CCCCACATCTCTCTTCAGGAACGCTGAGGCCCTTCCCAGCAGCAGAATCTGTTGAGTTGCTGCCACAAACAAAA
AATACAATAAATATTTGAACCCCTCCCCCCCAGCACAAACCCCCCAAAACAACCCAACCCACGAGGACCATCGG
GGGCAGAGTCGTTGGAGACTGAAGAGGAAGAGGAGGAGGAGAAGGGGAGTGAGCGGCCGCCCCAGGGCGGAGAT
CCAGGAGCTGGCGGCCGCCGATCCGATGGAGAAGGGGGGACCCAGGCCAGCAGGAGACAGGACCCCGAAGCTGA
GGCCTTGGGATGGAGCAGAAGCCGGAGTGGCGGGGCACGCTGCCGCCTTCCCCATCAGGAGGGTCCAGACTGTC
CACTCGGGGGTGGAGTGAGACTGACTGCAAGCCCCACCCTCCTTGAGACTGGAGCTGGCGTCTGCATACGAGAGA
CTTGGTTGAACCTGGTTGGTCTTGTCTGCACCCTCGACAAGACCACACTTTGGGACTTGGGAGCTGGGGCTGAA
GTTGCTCTGTACCCATGAACTCCCAGTTTGCGAATTATAGAGACAATCTATTTTGTIACCTGCACTTGTTATTTCG
AACCCTGAGAGCGAGATGGGAAGCATAGATATCTATATTTTTATTCTACTATGAGGGCCTTGTAATAAATTC
TAAAGCCTC

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FIGURE 5160

GGGCAGGGGCGTGGGCGGGGCGTGGACCAGCCGCGCCGAGCGGGGCCCTCTCCGGGCGCGTCTGTGGGGTCGAGA
CTGCGCGGGCCGTTGGGCGTGCAGCGGCGCCAGTCGGCGGACGAGGGGCCCCGGGAGTTGCTGGACTGAGACATG
AGCCTCCAAC TGTGTGGTTGGGCTCGGTAGCACATCGTGGGACTTGGGTGTGCGCCACAGATGGTTTGGCCCTG
CAGTGACCAGAGCAGCCCAAGCCGCCACCATGGTGAAATTGCTAGTGGCCAAAATCCTGTGCATGGTGGGCGTGT
TCTTCTTCATGCTGCTCGGCTCCCTGCTCCCCGTGAAGATCATCGAGACAGATTTTGAGAAGGCCCATCGCTCGA
AAAAGATCCTCTCTCTCTGCAACACCTTTGGAGGAGGGGTGTTTCTGGCCACGTGCTTCAACGCTCTGCTGCCCG
CTGTGAGGGAAAAGCTCCAGAAGGTCCTGAGCCTCGGCCACATCAGCACCGACTACCCGCTGGCCGAAACCATCC
TCCGTGCTGGGCTTCTTCATGACCGTCTTCCTGGAGCAGCTGATCCTGACCTTCCGCAAGGAGAAGCCGTCTTCA
TCGACCTGGAGACCTTCAACGCCGGATCGGACGTGGGCAGCGACTCGGAGTATGAGAGCCCCCTTCATGGGGGGCG
CGCGGGGCCACGCGCTGTACGTGGAGCCCCACGGCCACGGCCCCAGCCTGAGCGTGCAGGGCCTCTCGCGCGCCA
GCCCCGTGCGCCTGCTCAGCCTGGCCTTCGCGCTGTGCGGCCACTCGGTCTTTGAGGGCCTGGCCCTGGGCCTGC
AGGAGGAGGGGGAGAAAAGTGGTGAGCCTGTTCTGTTGGGGTGGCCGTCCACGAGACACTGGTGGCCGTGGCCCTGG
GCATCAGCATGGCCCGGAGTGCCATGCCCCTGCGGGACGCGGCCAAGCTGGCGGTACCGTAAGCGCCATGATCC
CCCTGGGCATCGGCCTGGGCCTGGGCATTGAGAGCGCCAGGGCGTGCCGGGCAGCGTGGCGTCCGTGCTGCTGC
AGGGCCTGGCGGGGCGGCACCTTCCTCTTCATCACTTCCTGGAGATCCTGGCCAAGGAGCTGGAGGAGAAGAGTG
ACCGTCTGCTCAAGGTCTCTTCCTGGTGCTGGGCTACACCGTCTGGCCGGGATGGTCTTCTCAAGTGGTGAG
CGGCCTCGCCATTGTCCCTGCCGCCGAGCCCCGCCGGGAGCCCCGGGCCGACACAGGCCGCTCCCCGGCCGC
GCGTCCCCCAAGAGCGAGCACTGTGGCCCTGGGCCACCACCTGTGCACAAGGGGCCTCCCGGGACCAGGCTGTGC
CCCCGATCCTACACCCTGAGCCTCAGAGCACTGCTACTTTTTAAATACTTCTTTCTTTAAAGTCTTTACC

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FIGURE 5161

GGGCGTCGCGCCCTGGGGCCGGGGCCGGGGCCGGGACCGCGGTGCGCAAGCGCAACCGTCCGGTGGGTGCGGGATCGG
TCGCCTGAGAGGTATCACCTCTTCTGGGCTCAAGATGGACAACAAGAAGCGCCTGGCCTACGCCATCATCCAGTT
CCTGCATGACCAGCTCCGGCACGGGGCCCTCTCGTCCGATGCTCAGGAGAGCTTGGAAGTCGCCATCCAGTGCCT
GGAGACTGCGTTTGGGGTGACGGTAGAAGACAGTGACCTTGCCTCCCTCAGACTCTGCCGGAGATATTTGAAGC
GGCTGCCACGGGCAAGGAGATGCCGCAGGACCTGAGGAGCCCCGCGCAACCCCGCCTTCCGAGGAGGACTCAGC
AGAGGCAGAGCGCCTCAAAACCGAAGGAAACGAGCAGATGAAAGTGGAAGAACTTTGAAGCTGCCGTGCATTTCTA
CGGAAAAGCCATCGAGCTCAACCCAGCCAACGCCGTCTATTTCTGCAACAGAGCCGCAGCCTACAGCAAACTCGG
CAACTACGCAGGCGCGGTGCGAGACTGTGAGCGGGCCATCTGCATTGACCCGGCCTACAGCAAGGCCTACGGCAG
GATGGGCCTGGCGCTCTCCAGCCTCAACAAGCACGTGGAGGCCGTGGCTTACTACAAGAAGGCTCTGGAGCTGGA
CCCCGACAACGAGACATACAAGTCCAACCTCAAGATAGCGGAGCTGAAGCTGCGGGAGGCCCCAGCCCCACGGG
AGGCGTGGGCAGCTTCGACATCGCCGGCTGCTGAACAACCTGGCTTCATGAGCATGGCTTCGAACCTAATGAA
CAATCCCCAGATTACGAGCTCATGTCCGGCATGATTTCCGGTGGCAACAACCCCTTGGGAAGTCCCGGCACCAG
CCCCTCGCAGAACGACCTGGCCAGCCTCATCCAGCGGGCCAGCAGTTTGCCAGCAGATGCAGCAGCAGAACCC
AGAGTTGATAGAGCAGCTCAGGAGCCAGATCCGGAGTCGGACGCCCCAGCGCCAGCAACGACGACCAGCAGGAGTG
ACGCTGCCTGCTCCCGGTGTGACCGCGTCCTTCCCTGGCCGACCCGAAGGAAGCCTTCTGGTTGTCTGCCACTTC
CTCCTGTTGGACTGCCTGAGAGAGGGGAAGAGAGAGACCTCGGACCTGCATGTCAAGATGGATTTTCCCTTTTA
TCTCTGCCCTCCTCCACTCCCTTTTGTAACTCCCTTACAGCCCCCAGACCCCTTCTTGAAACGAGAGCCAGCAAG
CTGAGCACAGACCAGCAGCGACCTCCCTTCCAGCCCCCAGAAAGCTCGGTCACTTGAGTGTTTTCTAGAATCCTG
GGGTGCTCCCGGGCCGCTCTCAGAGAAGTGCGAGGTTTACGTTTACGCCGTGTGGCGGATCGTGTGGCTTCCAAA
GCCTTTTACAGCCCCCGCCCCCATCCCGTGGTCTGTCTGCAGGAAGCTCTCCCGTCTGTGAGAAGCCTCTTTCCG
AGTCGACCTCCCGGCCACCCCGGCCCTGTGCCTGCTCGGAAGAGCTCACTGCCAGCTGCGGCCTGGGCACCGCGG
GCCATGTGTGTTTGCATGAGGAAGCTCTTTAGTGGCAGACACCTAAGAGACGGCTGCGGTACCCCCACGCCTCCGC
GGCTCAGGAGCCGTCTTGGGTGCATAGGACCAGTTTCTGTGACTTTTCTCCAGTTGGGCATGTTGACAGACATGT
TTCCCTCCTCCACCCCTCATTTTCTGGTCTCGCGACTGAGAGCCAGGGGCGACATCATGACCTTCTGTCCCGG
CCGCCTTAGCCCCGGGCACAGGGAAGGCAGCTGGGCGGTTTCTGTCTGTGTCCCATCCTGCTGTCTTCTGTCTCT
GGATGTTTCAAGGGCCCGGGCCCCCAGGGAAGCTTACCCCTCCTGTGCTGGGTGGAGGCCACGGGACACCTCA
GGTGCCACCCACCTTGGCCCTAAAACAGCCACCAGGAAAGCAGCCGGAGAGCCGGACAGCAGGCAGCCTGTCTGG
GTTCTGAGGCCTGGGGGTGGCAGACGAGCCACGGCGCCGTGGTCCAGCAGCAGGGTTGTGAGTCGGAGCATC
CTGGGGCTCCCTGGCTCCTGGCCGTCTGTGAGGTAGGCGCAGTACCGTGTATCGTAGGTAGCAGTAGGAACGGGG
GCCCGCGGGCCCTGCAGCCGCTCATGGCGGTGAGGTGTGTGCCAAGCCACCCGGGGTGCAGGGCGTGACGTGT
GGGAATAAATAGGCGTTGTGACCTCTAAAAAAAAAAAAAAAAAAAA

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FIGURE 5162

MDNKKRLAYAI IQFLHDQLRHGGLSSDAQESLEVAIQCLETAFGVTVEDSDLALPQTLPEIFEAAATGKEMPQDL
RSPARTPPSEEDSAEAERLKTEGNEQMKVENFEAAVHFYGKAIELNPANAVYFCNRAAAYSKLGNYAGAVQDCER
AICIDPAYSKAYGRMGLALSSLNKHVEAVAYYKKALELDPDNETYKSNLKIAELKLREAPSPTGGVGSFDIAGLL
NNPGFMSMASNLMNNPQIQQLMSGMISGGNNPLGTPGTSPSQNDLASLIQAGQQFAQQMQQQNPELIEQLRSQIR
SRTPSASNDDQQE

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FIGURE 5163

GTGGCGGCGGTTGGGCCGAGGCAGGCGGCCCTCAGTGGCCGAGGTGGCTGGACGCGTAGCAGGTGGAAGGAGGGAG
GGAGCCGCAGGCGCAGACCCACCCGCCATGAAGCCCCCGCAGCCTGTGCAGGAGACATGGCGGACGCAGCATCT
CCGTGCTCTGTGGTAAACGACCTGCGGTGGGACCTGAGTGGCCAGCAGATAGAGGAGCGCACCAGGGAGCTCATC
GAGCAGACCAAGCGCGTGTATGACCAGGTTGGCAGCCAGGAGTTTGAGGACGTGTCTACGAGAGCAGCTCAAG
GCGCTGGCCGATGTGGAGGTCACCTACACAGTTCAGAGGAATATCCTTGACTTCCCCCAGCATGTTTCCCCCTCC
AAGGACATCCGGACAGCCAGCACAGAGGCCGACAAGAAGCTCTCTGAGTTCGACGTGGAGATGAGCATGAGGGAG
GACGTGTACCAGAGGATCGTGTGGCTCCAGGAGAAAGTTGAGAAGGACTCACTGAGGCCCGAGGCTGCGCGGTAC
CTGGAGCGGCTAATCAAGCTGGGCCGGAGAAATGGGCTTACCTCCCCAGAGAGACTCAGGAAAACATCAAACGC
ATCAAGAAGAAGCTGAGCCTTCTGTGCATCGACTTCAACAAGAACCTGAACGAGGACACGACCTTCTGCCCTTC
ACGCTCCAGGAGCTAGGAGGGCTCCCCGAGGACTTTCTGAACCTCCCTGGAGAAGATGGAGGACGGCAAGTTGAAG
GTCACCCCTCAAGTACCCCCATTACTTCCCCCTCTGAAGAAATGCCACGTGCCTGAGACCAGGAGGAAAGTGGAG
GAGGCCCTTCAACTGCCGGTGCAAGGAGGAGAACTGCGCTATCTCAAGGAGCTGGTGACGTGCGGGCCAGAAAG
TCCCCGCTGCTGGGGTTCCACACGCACGCCGACTATGTCTGGAGATGAACATGGCCAAGACCAGCCAGACCGTG
GCCACCTTCTAGATGAGCTGGCGCAGAAGCTGAAGCCCCTGGGGGAGCAGGAGCGTGCGGTGATTCTGGAGCTG
AAGCGTGCGGAGTGCGAGCGCCGGGGCCTGCCCTTCGACGGCCGCATCCGTGCCTGGGACATGCGCTACTACATG
AACCAGGTGGAGGAGACGCGCTACTGCGTGGACCAGAACCTGCTCAAGGAGTACTTCCCCGTGCAGGTGGTCACG
CACGGGCTGCTGGGCATCTACCAGGAGCTCCTGGGGCTGGCCTTCCACCACGAGGAGGGCGCCAGTGCCTGGCAT
GAGGACGTGCGGCTCTACACCGCGAGGGACGCGGCCCTCGGGGGAGGTGGTCGGCAAGTTCTACCTGGACCTGTAC
CCGCGGGAAGGAAAGTACGGGCACGCGGCCCTGCTTTGGCCTGCAGCCCCGCTGCCTGCGGCAGGATGGGAGCCGC
CAGATCGCCATCGCGGCCATGGTGGCCAACTTCACCAAGCCCACAGCCGACGCGCCCTCGCTGCTGCAGCATGAC
GAGGTGGAGACCTACTTCCATGAGTTTGGCCACGTGATGCACCAGCTCTGCTCCCAGGCGGAGTTGCGCCATGTTT
AGCGGGACCCACGTGGAGCGGGACTTTGTGGAGGCGCCGTGCGCAGATGCTGGAGAAGCTGGGTGTGGGAGCAGGAG
CCGCTGCTGCGGATGTGCGGCACTACCGCACAGGCAGCGCCGTGCCCCGGGAGCTCCTGGAGAAGCTCATTGAG
TCCGGGCAGGCCAACACAGGCCCTTCAACCTGCGCCAGATCGTCTCGCCAAGGTGGACCAGGCCCTGCACACG
CAGACGGACGCAGACCCCGCCGAGGAGTATGCGCGGCTCTGCCAGGAGATCCTCGGGGTCCCGGCCACGCCAGGA
ACCAACATGCCTGCAACCTTCGGCCATCTGGCAGGTGGCTACGACGCCCAGTACTACGGGTACCTGTGGAGCGAG
GTGTATTCCATGGACATGTTCCACACGCGCTTCAAGCAGGAGGGTGTCTGAACAGCAAGGTTGGCATGGATTAC
AGAAGCTGCATCCTGAGACCCGGCGGTTCCGAGGATGCCAGCGCCATGCTGAGGCGCTTCTTGGGCCGTGACCCC
AAGCAGGACGCCCTTCTCCTGAGCAAGGGGCTGCAGGTGCGGGGCTGCGAGCCGAGCCGCGAGGTCTGCTGAGGC
CTGGCACTGCGACTGCCAGTCTGGCCTGCGCTCCCGCCGCCCTGGTGCCTTAGCCCCCGGCACAGGATGGGGCA
GGCTCTGGCACAGTGCCCTGGGACTGGCAGGGTGGCTGAGCGGCTGTCTTGCTCTTGTCATTGTCTGTCCCCACC
CGTCTGTGGCCACCCGGCTAGAGACGGCGTCTCAAGGCATCTGGAGGGCTTTCTGTGGCTGCCAGGGCCTGGTC
TTTGTGCACTAACACGTCTCCTCTCTGGGAAACGTCCCTTGTCAGGAGACGGCTCTTCTTTGAAATGAGGTGAT
TAAAAGGAAAC

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FIGURE 5164

MKPPAACAGDMADAASPCSVVNDLRWDLSAQQIEERTRELIEQTKRVYDQVGTQEFEDVSYESTLKALADVEVTY
TVQRNILDFFPQHVSFSDIRTASTEADKKLSEFDVEMSMREDVYQRIVWLQEKVQKDSLRPEAARYLERLIKLGR
RNLGLHLPRETQENIKRIKKKLSLLCIDFNKNLNEDTTFLPFTLQELGGLPEDFLNSLEKMEDGKLKVTLYPHYF
PLLKKCHVPETRRKVEEAFNCRCKEENCAILKELVTILRAQKSRLGFGHTHADYVLEMNMAKTSQTVATFLDELAQ
KLKPLGEQERAVILELKRAECERRGLPFDGRIRAWDMRYMNVQVEETRYCVDQNLKEYFPVQVVTHGLLGIYQE
LLGLAFHHEEGASAWHEDVRLYTARDAASGEVVGKFYLDLYPREGKYGHAACFGLQPGCLRQDGSRQIAIAAMVA
NFTKPTADAPSLQHDEVETYFHEFGHVMHQLCSQAEFAMFSGTHVERDFVEAPSQMLENVWWEQEPLLRMSRHY
RTGSAVPRELLEKLIERSQANTGLFNLRQIVLAKVDQALHTQTDADPAEEYARLCQEILGVFATPGTNMPATFGH
LAGGYDAQYYGYLWSEVYSMDMFHTRFKQEGVLNSKVGMDYRSCILRPGGSEDASAMLRRLGRDPKQDAFLLSK
GLQVGGCEPEPQVC

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FIGURE 5165

CTGGGGGGCTTTTCGGATCGGCAGGATGTACCCCCAGGGAAGGCACCCGACCCCGCTCCAGTCCGGCCAGCCCTT
CAAGTTCTCGATCTTGGAGATCTGCGACCGCATCAAAGAAGAATTCCAGTTTCTTCAGGCTCAATACCACAGCCT
CAAGCTAGAATGTGAGAAGCTGGCCAGCGAGAAGACGGAAATGCAGCGACATTATGTCATGTATTATGAGATGTC
GTACGGGCTCAACATTGAAATGCATAAGCAGGCGGAGATTGTGAAGCGTCTGAGCGGTATCTGCGCTCAGATTAT
CCCCCTTCCTGACCCAGGAGCATCAGCAGCAGGTGCTCCAGGCCGTAGAACGCGCCAAGCAGGTCACCGTGGGGGA
GCTGAACAGCCTCATCGGGCAGCAGCTCCAGCCGCTGTCCACCACGCACCCCTGTGCCCTCACCCCCCGCCC
AGCCGGGCTGGTGGGCGGCAGTGCTACGGGGCTGCTTGCTCTGTCTGGAGCCCTGGTGCCAGGCTCAGCTGGC
GGCGGCTGTCAAGGAGGACCGTGCGGGCGTGGAGGCCGAGGGGTCCAGAGTGGAGAGAGCCCCGAGCAGGAGTGC
ATCTCCCTCGCCCCCTGAGAGTCTCGTGGAGGAGGAGCGACCGAGTGGCCCTGGTGGTGGCGGGAAGCAGAGAGC
AGATGAGAAGGAGCCATCAGGACCTTATGAAAGCGACGAAGACAAGAGTGATTACAATCTGGTGGTGGACGAGGA
CCAACCCTCAGAGCCCCCAGCCCCGGCTACCACCCCTGCGGAAAGGTACCCATCTGCATTCTGCCCGTCGGGA
CCTGGTGGACAGTCCAGCCTCCTTGGCCTCTAGCCTTGGCTCACCGTGCCTAGAGCCAAGGAGCTCATCTGAA
TGACCTTCCCGCCAGCACTCCTGCCTCCAAATCCTGTGACTCCTCCCGCCCCAGGACGCTTCCACCCCCGGGCC
CAGCTCGGCCAGTCACCTCTGCCAGCTTGCTGCCAAGCCAGCACCTTCCACGACAGCGTCGCCCTGAGGAGCCC
CCTGACTCTGTCCAGTCCCTTACCACGTCCTTACGCTGGGCTCCCACAGCACTCTCAACGAGACCTCTCCGT
GCCCAGCTCCTACGTCAGCCTCCACCTGTCCCCCAGGTACAGAGCTCTGTGGTGTACGGACGCTCCCCCGTGAT
GGCATTGAGTCTCATCCCCATCTCCGAGGGTCATCCGTCTCTTCCCTCCCTACCCAGCATCCCTGGGGGAAAGCC
GGCCTACTCCTTCCACGTGTCTGCGGACGGGCAGATGCAGCCGGTTCCCTTCCCTCGGATGCACTGGTAGGCGC
GGGCATCCCGCGGCACGCCCGGCAGCTGCACACGCTGGCCCATGGCGAGGTGGTCTGCGCGGTACCATCAGCGG
CTCCACACAGCATGTGTACACGGGCGGCAAGGGCTGTGTGAAGGTGTGGGACGTGGGCCAGCCTGGGGCCAAGAC
GCCCCTGGCCAGCTCGACTGCCTGAACCGAGACAACCTACATTCTGCAAGTTGCTGCCGGATGGCCGGAG
TCTGATCGTGGGCGGTGAGGCCAGCACCTTGTCCATTGGGACCTGGCGGCGCCACCCCCGTATCAAGGCCGA
GCTGACTTCTCAGCCCCAGCCTGCTACGCCCTGGCCGTCAGCCCCGACGCCAAGGTTTGTCTTCTCTGCTGCAG
CGATGGCAACATTGTGGTCTGGGACCTGCAGAATCAGACTATGGTCAGGCAGTTCCAGGGCCACACGGACGGCGC
CAGCTGCATTGATAATTTCCGATTACGGCACTCGGCTCTGGACAGGGGGCCTGGACAACACGGTGCGCTGCTGGGA
CCTGCGGAGGGCCGCCAGCTGCAGCAGCATGACTTCAGCTCCAGATTTTCTCCCTGGGCCACTGCCCTAACCA
GGACTGGCTGGCGGTGGAATGGAGAGTAGCAACGTGGAGATCCTGCAGTCCGCAAGCCGGAGAAATACCAGCT
GCACCTCCACGAGAGCTGCGTGCTGTCCCTGAAGTTTGCTCCTGCGGACGGTGGTTTGTGAGCACCGGGAAGGA
CAACCTGCTCAACGCCTGGAGGACGCCGTACGGGGCCAGCATTTTCCAGTCCAAGGAGTCGTCTCAGTCCTGAG
TTGTGACATCTCCAGAAATAACAAATACATCGTGACAGGCTCGGGGACAAGAAGGCCACCGTGTATGAGGTGGT
CTACTGAGACATGACCCCCC

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FIGURE 5166

GCCGCACTGAGCCACAGCCCCGGGGGCCGCTCCCGGGGCCCCCTTGAGGCACTGAGGCACCGAGACTGGTTCTCC
CCGAGAGACTCGGAAGGTGGGGAACGAGGGGACTGTGTTTGGGGAGGTGGCTTTTTTCGTCTGCTGTTGACTGAAC
ACTACAGCGCCCTGTGGTTCCGGGCTTCGCACAGCTGTCCCAGGGATCGATCGCCTGTGCTGCCTTCGCCCCGCG
CCACACCGGGACCCTGCACGGCTGCTTCTGGCCTCGACAGATGACAAAAGAAACAGCCCCAAAATACGACCACTC
CAACCAGCAGTTCCTCGCTGCCTGCCCGCCACTGTCAGGCCTGCCCTGGCCTCCTCGTCCGCAGGGCTGTCTGCT
GGCTTCTGGGGGAGAAAGAGCGGGGAGCCCCGTGGAAGGGTCAGGGGAGACCAGGTCAGGGCAGCTACATTTCTG
GTGATCAGCCCCATGGGGAGACGGGGCTGGCGGGATACCCCCCCCCGGCTTCCCCACACCACTTCTGTCTCACC
CGGAAGCGTCTTTTTTTGTGCCAGGTGTCTACCTAAGAGGGTTGGTGCCAGAAGCCCCCATGGCGAGTGCTGG
GGCCCGCGGTGCCCTGGGGGAGCAGATGGGGGCCACCCCTGGCAGGGCCGCTACAACCTTTTCAGCAGCGGAGC
CCTCTGGGGGGCTGTGCTTGTGGCATCTCTGAGGGCCCTAGATTGCACAAGGTGACCTGGCCGTGGCCTGAGGGT
GGAGTCGCCCAGCACGCAGGCCGGGGCGCTGCGGGGCTAAGTATTAGGCCTTCCCAGGGAGGGGGCGTGCCAAGC
ATCCCAGAGCCGGGCTGGGACCGCCAAAACGTCGTGGCCTGGATCCTCTGGGTCTGAGTGCCTGATCCCCTGCCC
CCCAAAAAGCAGAGGTAGGTGTTGCAGGCCAGGGCAGGGGTGCCTGCCCCAGGAGAGTCCCAGGCAGTGGTTT
TCGTGCCAGTGGCACCCAGGGGCAAGGACAGCCAACCCCCACCCCTTGCCACGTGTGGGGCCACGTGGGCATGTGG
GGTGTGTGTTTTTACCTTGGTGAATCTCACCTGCCAACGATTTCTCGTGAGTGCCAATGTCCCCCAGTGGTGGCA
GCAGATCCTGTGGCCGGCCTGGCGGACGGGACCCAGTGATACCTTGTATATTACACAGTCCTGATTTTACAGACAATT
TCAACCTTAATCTATTTAAAAAAGAATATTCATACAAGCTGTTTTTAAGCCTTTTACCATTTGAAATGCATGTG
TTGTGCGCTTGGGGATGGGAGGAGGGGCTGAGGAGCGGCTCAGTGTACCTCCCACAGCCACCGGCCCTGACCC
TTAATCCAGACACCGATGGAAGTCGACTTTTCATATCTTTCTCCTGAAATGAACTCTGTTTTAAATTGGAATAAA
TTTTGTTCT

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FIGURE 5167

MDRLCCLRPPPHRDPARLLLLASTDDKRNSPKIRPLQPAVPACLPATVRPALASSSAGLSAGFWGQKSGEPRGRVR
GDQVRAATFLVISPMGRRGWRDTPPPASPHHFCLTRKRPFFVPGVYLRGLVPEAPHGECWGPVPWGSRWGHPWQ
GRYNLFQQRSPLGGLCLWHL

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FIGURE 5168

GGCCGCCCCGGCGCCCCCAGCAGCCCGAGCCGGGGCGCACAGCCGGGGCGCAGCCCGCGCCCCCGCCGCGATTGA
CATGATGTTTTCCACAAAGCAGGCATTTCGGGCTCCTCGCACCTACCCAGCAACTCAAATTCACCACCTCGGACTC
CTGCGACCGCATCAAAGACGAATTTTCAGCTACTGCAAGCTCAGTACCACAGCCTCAAGCTCGAATGTGACAAGTT
GGCCAGTGAGAAGTCAGAGATGCAGCGTCACTATGTGATGTACTACGAGATGTCCTACGGCTTGAACATCGAGAT
GCACAAACAGGCTGAGATCGTCAAAAGGCTGAACGGGATTGTGCCCAGGTCTGCCCCTACCTCTCCCAAGAGCA
CCAGCAGCAGGTCCTTGGGAGCCATTGAGAGGGCCAAGCAGGTCACCGCTCCCGAGCTGAACTCTATCATCCGACA
GCAGCTCCAAGCCCACCAGCTGTCCCAGCTGCAGGCCCTGGCCCTGCCCTTGACCCCACTACCCGTGGGGCTGCA
GCCGCTTCGCTGCCGGCGGTTCAGCGCAGGCACCGGCCTCCTCTCGCTGTCCGCGCTGGGTTCACAGGCCACCT
CTCCAAGGAAGACAAGAACGGGCACGATGGTGACACCCACCAGGAGGATGATGGCGAGAAGTCGGATTAGCAGGG
GGCCGGGACAGGGAGGTTGGGAGGGGGGACAGAGGGGAGACAGAGGCACGGAGAGAAAGGAATGTTTAGCACAAG
ACACAGCGGAGCTCGGGATTGGCTAAACTCCCATAGTATTTATGGTGGCCGCCGGCGGGGGCCCCAGCCAGCTT
GCAGGCCACCTCTAGCTTTCTTCTTACCCCATTCCTCGGCTTCCTCCTCCTCCCTGCAGCCTGGTTAGGTGGAT
ACCTGCCCTGACATGTGAGGCAAGCTAAGGCCTGGAGGGTCAGATGGGAGACCAGGTCCCAAGGGAGCAAGACCT
CGCGAAGCGCAGCAGCCCCGGCCCTTCCCCCGTTTGAACATGTGTAACCGACAGTCTGCCTGGGCCACAGCCCT
CTCACCCCTGGTACTGCATGCACGCAATGCTAGCTGCCCCCTTCCCGTCTCTGGGCACCCCGAGTCTCCCCGACCC
CGGGTCCCAGGTATGCTCCACCTCCACCTGCCCCACTCACCACCTCTGCTAGTTCCAGACACCTCCACGCCAC
CTGGTCTCTCCCATCGCCACAAAAGGGGGGGCAGAGGGACGAGCTTAGCTGAGCTGGGAGGAGCAGGGTGAG
GGTGGGCGACCCAGGATTCCCCCTCCCCTCCCCAAATAAAGATGAGGGTACT

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FIGURE 5169

ATGGACCAGGACTATGAGCGGCGCCTGCTTCGCCAGATCGTCATCCAGAATGAGAACACGATGCCACGCGTCACA
GAGATGCGGCGGACCCTGACGCCTGCCAGCTCCCCAGTGTCTCGCCCAGCAAGCACGGAGACCGCTTCATCCCC
TCCAGAGCCGGAGCCAACTGGAGCGTGAACCTCCACAGGATTAACGAGAATGAGAAGTCTCCAGTCAGAACCGG
AAAGCCAAGGACGCCACCTCAGACAACGGCAAAGACGGCCTGGCCTACTCTGCCCTGCTCAAGAATGAGCTGCTG
GGTGCCGGCATCGAGAAGGTGCAGGACCCGCAGACTGAGGACCGCAGGCTGCAGCCCTCCACGCTGAGAAGAAG
GGTCTGTTACGTATTCCCTTAGCACCAAGCGCTCCAGCCCCGATGACGGCAACGATGTGTCTCCCTACTCCCTG
TCTCCCGTCAGCAACAAGAGCCAGAAGCTGCTCCGGTCCCCCGGAAACCCACCCGCAAGATCTCCAAGATCCCC
TTCAAGGTGCTGGACGCGCCCGAGCTGCAGGACGACTTCTACCTCAATCTGGTGGACTGGTCGTCCCTCAATGTG
CTCAGCGTGGGGCTAGGCACCTGCGTGTACCTGTGGAGTGCCTGTACCAGCCAGGTGACGCGGCTCTGTGACCTC
TCAGTGGAAGGGGACTCAGTGACCTCCGTGGGCTGGTCTGAGCGGGGGAACCTGGTGGCGGTGGGCACACACAAG
GGCTTCGTGCAGATCTGGGACGCAGCCGCAGGGAAGAAGCTGTCCATGTTGGAGGGCCACACGGCACGCGTCGGG
GCGCTGGCCTGGAATGCTGAGCAGCTGTCGTCCGGGAGCCGCGACCGCATGATCCTGCAGAGGGACATCCGCACC
CCGCCACTGCAGTCGGAGCGGCGGCTGCAGGGCCACCGGCAGGAGGTGTGCGGGCTCAAGTGGTCCACAGACCAC
CATCTCCTCGCCTCGGGGGGCAACGACAACAAGCTGCTGGTCTGGAATCACTCGAGCCTGAGCCCCGTGCAGCAG
TACACGGAGCACCTGGCGGCCGTGAAGGCAATCGCCTGGTCCCCACATCAGCACGGGCTGCTGGCCTCGGGGGGC
GGCACAGCTGACCGCTGTATCCGCTTCTGGAACACGCTGACAGGACAACCACTGCAGTGTATCGACACGGGCTCC
CAAGTGTGCAATCTGGCCTGGTCCAAGCACGCCAACGAGCTGGTGAACGACGACGGTTACTCACAGAACCAGATC
CTTGCTGGAAGTACCCCTCCCTGACCCAGGTGGCCAAGCTGACCGGGCACTCCTACCGCGTGCTGTACCTGGCA
ATGTCCCCTGATGGGGAGGCCATCGTCACTGGTGTGGAGACGAGCCCTGAGGTTCTGGAACGTCTTTAGCAA
ACCCGTTGACAAAGGTAAAGTGGGAGTCTGTGTCTGTGCTCAACCTCTTACCAGGATCCGGTAA

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FIGURE 5170

MDQDYERRLLRQIVIQNENTMPRVTEMRRILTPASSPVSSPSKHGDRFIPSRAGANWSVNFHRINENEKSPSQNR
KAKDATSDNGKDGLAYSALLKNELLGAGIEKVQDPQTEDRRLOPSTPEKKGLFTYSLSTKRSSPDDGNDVSPYSL
SPVSNKSQKLLRSPRKPTRKISKIPFKVLDAPELQDDFYLNLDWSSLNVL SVGLGTCVYLWSACTSQVTRLCDL
SVEGDSVTSVGWSE RGNLVAVGTHKG FVQIWDAAAGKKLSMLEGHTARV GALAWNAEQLSSGSRDRMILQDIRT
PPLQSERRLQGHRQEVCGWKWSTDHLLASGGNDNKLLVWNHSSLSPVQQYTEHLAAVKAIAWSPHQHGLLASGG
GTADRCIRFWNTLTGQPLQCIDTGSQVCNLAWSKHANELVSTHGYSQNQILVWKYPSLTQVAKLTGHSYRVLYLA
MSPDGEAIVTGAGDETLRFWNVFSKTRSTKVKWESVSVLNLFTIR

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FIGURE 5171

TTTCCCGAGATCACCAAGATGCTGGGCGCCGAGTGGAGCAAGCTGCAGCCAACGGAAAAGCAGCGGTACCTGGAT
GAGGCCGAGAGAGAGAAGCAGCAGTACATGAAGGAGCTGCGGGCGTACCAGCAGTCTGAAGCCTATAAGATGTGC
ACGGAGAAGATCCAGGAGAAGAAGATCAAGAAAGAAGACTCGAGCTCTGGGCTCATGAACACTCTCCTGAATGGA
CACAAGGGTGGGGACTGCGATGGCTTCTCCACCTTCGATGTTCCCATCTTCACTGAAGAGTTCTTGGACCAAAAC
AAAGCGCGTGAGGCGGAGCTTCGGCGCTTGCAGGAAGATGAATGTGGCCTTCGAGGAGCAGAACGCGGTACTGCAG
AGGCAAAACGCAGAGCATGAGCAGCGCGCGGAGCGTCTGGAGCAGGAGCTGGCGCTGGAGGAGCGGAGGACGCT
GGCGCTGCAGCAGCAGCTCCAGGCCGTGCGCCAGGCGCTCACCGCCAGCTTCGCCTCACTGCCGGTGCCGGGCAC
GGGCGAAACGCCCACGCTGGGCACTCTGGACTTCTACATGGCCCGGCTTCACGGAGCCATCGAGCGCGACCCCGC
CCAGCACGAGAAGCTCATCGTCCGCATCAAGGAAATCCTGGCCCAGGTCGCCAGCGAGCACCTGTGAGGAGTGGG
CGGGCCACGATGCAGAGGAGAAGCTGTGGGCGCGGCCCTGCCACACCCACCCCGTGACGAGAGGCTGGGGGT
CCACCCTTTGGGGCCTGGTCCCATCCTGCACCTTTGGGGGCTCCAGCCCCCTAAATTTAAATTTCTGCAGCATC
CCTTTAGCTTTCAATCTCCCCAGCCCCCTGAACCCGAAAAAGCACTCGCTGCGCGATACACCCAGAAGAACCTC
ACAGCCGAGGGTGCCCCCTCCTCGGAGGACAGCCACGCGCTACACTGGCTCTCCGGGCCACCCACAGGACACAGGG
CAGACGAAACCCACCCACAGCACACGGCAGGACCCCAAAATTACTACTACGGGGGGCTGTGCCATAGGCCACA
CAGGAAGCTGCCTTGTGGGGACTTACCTGGGGTGTCCCCCGCATGCCTGTACCCAGATGGGTGGGGGCCGGCTT
TGCCCATCCTGCTCTCCTCCAGCCGAGGGACCTGGTGGGGGTGGCTCCTTCTCACTGCTGGATCCGGACTTTTT
AAATAAAAACAAGTAAATTTGTGTTTTAAA

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FIGURE 5172

MLGAEWSKLQPTKQRYLDEAEREKQQYMKELRAYQQSEAYKMCTEKIQEKKIKKEDSSSGLMNTLLNGHKGGDC
DGFSTFDVPIFTEEFLDQNKAREAELRRLRKMNVAFEEQNAVLRQNAEHEQRARASGAGAGAGGAEDAGAAAAA
PGRAPGAHRQLRLTAGAGHGRNAHAGHSGLLHGPAASRSHRARPRPAREAHRPHQGNP GPGRQRAPVRS GRAHDAE
EKLWARPCHTPPRGREAGPPFGAWSHAPPLGAPAPLKLNFCSIPLAFNLPSPLNPEKALAARYTQKNLTAEGAP
PRRTATRYTGSPGHPQDTGQTKPTPSTRQDPPNYSIRGAVP

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FIGURE 5173

GCGCCAGGCCCGCTGGGGCAGGTGTCCCGTGGAATCGACGGAGGGGCTGCCGTGGGCGGCCGTGACAGTCACAG
AGAGGGGAAGAGAAAACAGGGACGGTGACACACACAGAGAGAAGGAAGAGCAGACAGAGGCACAGCAGGAGACCC
CCCCAAGCCCGAGGAGGACAGCCTGGGGATGCAGAGCACATGCCGGCCCCAGTGGAGGGAACCGATTTCCCCGGA
GCCGGGAGGCAAGCCTGGGGCTCCCCTGCCCTGTCCCTGCCGGTAGCCCCCCCCAGCCGTCTCCCCACCATCTGTC
CCGCTGCCGTCCCACCAGGTGGGAGCCATGTTCTGAGCCCGGGCGAGGGGCGGGCAACCGAGGGTGGGGGTCTG
GGGCCGGGCGAGGAGGCCCCCAAGAAGAAGCACCGGAGGAACCGCACCACTTACCACCTACCAGCTGCACCAG
CTGGAGCGGGCGTTCGAGGCCTCTCACTACCCGGATGTGTACAGCCGTGAGGAGCTGGCAGCCAAGGTGCACCTA
CCTGAGGTGCGCGTGACAGGTGTGGTTCCAGAACCGCCGGGCCAAGTGCGCGCCGCCAGGAGCGGCTGGAGTCAGGC
TCGGGTGCCGTGGCAGCTCCGAGACTCCCCGAGGCCCCAGCGCTGCCGTTCGCCCGCCCCCGGCCATGTCGCTG
CCCCTGGAGCCCTGGTTGGGCCCCGACCGCCGGCCGTGCCAGGCCTCCCCCGCTCCTGGGCCCGGGCCCGGGG
CTGCAAGCGTCCCTCGGGCCTCATGCCTTTGCTCCACCTTCGCAGATGGCTTCGCCCTGGAGGAGGCGTCCCTG
CGGCTGTGGCCAAGGAACATGCACAGGCTCTGGACAGGGCCTGGCCGCCAGCCTGAGCCTGCCGCCCTCCCCGG
CCCCCTCCTCGGCCCAACCGAGAACCGGGGACGTGCCCTGGTGACAGCCACCACGCCTTGGCCTAGGCCGAGGT
CATGGAGCAACCGTGGTCAGGCCAGGCCACCACCCTGGGGAGCGGGACCAGAGAGACAGGCTGTGGGTTCCCT
GCCCCCATCCCGTCTCCACCCCATCGCCACCCGTCTGTGCTGGCAGCGGACTGGCCCCCAGTGTGAGGCAGGAGG
TGACCAAGTATTCTCAGGCCAGGTGCGGGGACCTCCTCCCCCTCCTGGGGCCTCAGTCTCCTGTCTGTAAATTGG
GCGTGGGGGCTCCGAGGTTCGAGGGCTGCGAGGCTGTGGGTGGCGGGACCGCTGACTCTGTAAGATGAGTGTA
ATCTCTCTGCTTCTCCTAATCCCCATCAGCAGAGCTGCCCCACTCTCCAGGCTCCAGTCCCCTGGAAATAACAAA
TAGCAGCAGCTCCCGCGAGCCTGGTCTCCTCTCACCCTGTGCTCGCCATGTGAGCACTCCCCTCTCCGTTGTGCC
CTGGACCTCGGGCACAGCTGTCAGCCCATTCTATAGAGAGGGAAACCGGGGCTTAGGCAGGAAGCCAGGTCCCCA
AAGTCGCACGCCAGGAGTGATGGAGCTGCCTTTCAGACCCATCACCAGTCTTACCCTCCGGGGCACAGCGACA
GGTTCGGAGAGAGGGTGGGTCCCGGGCCAGGTGCTGGTGGGCCTCCAGGTGGAGGCGGGCTGATGCTGGGTGTG
TCGTATCGTCAGACCGTTCTCAGTCCCCACAGACCCAGGCCCTGTGCATGTCCCAGTGGAGGCATGGCCA
GCATCTGCTCTGTCCAACCCAGTCGCATCGCCCAAGAGCTCTGAGCAAGGAGGCTGTGCGGGGGCCGAGAACCGG
CTGGGACTGGCAAGCACGGCTGGCCAGTGCAGCAGGAGGGGGCCCTGAGGCATGGGATGGGACAGTCTGGGCCA
GCGCCACCTCCCGGGACAGAAGTGCGGGCACCAGGGCAGGAGCTGCAGTAGCTACECTCCCCGTCTCCAGCCTGGG
CTCCCCAGATCACTCCCAGATCACCAGGTCACCCCATCTCTAGGCGGCACCTCACACACCAGTCTGTGGTCCAA
CGCCCCGCCATCACCCAATGTCACCGCACACCAGGCAGTGGGGACACGGCAGTAAGCACAAAGAAAGATTTTTTTT
TTTTTAAAGCTAAACAGGCCAGGTGCGGTGGCTCATGCCTGTAATCCCAGTGCTTTGGGAGGCTGAGGTGGGAG
GATTGCTTGAGACCAGCCTGGGTGACACAGCAAGACCCCATCTCCACAAACGTTTTTAAATGTGCCGGGTGTAC
TGGTGACACCTGTATCCAGCTACCCAAGAAGCTGAGGCAAGAGGATCACTTGAGCCCAGAAGGTGAGGCTG
CAGGGAGCTGTGATCACACTGCTGCACTCCAGCCTGTGCAACAGAGCCAGACCCTGACTCAATACAAATAAAAA
CAAATCTAAACCAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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FIGURE 5174

MFLSPGEGPATEGGGLGPGEAPKKKKHRRNRRTFTTYQLHQLERAFEASHYPDVYSREELAAKVHLPEVRVQVWF
QNRRAKWRRQERLESGSGAVAAPRLPEAPALPFARPPAMSLPLEPWLGPGPPAVPGLPRLLGPGPGLQASFGPHA
FAPTFADGFALEEASLRLLAKEHAQALDRAWPPA

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FIGURE 5175

GGCCGGCGGGCGGGCGGGCGGGCGGGCGGGAGGAGACCGCAGTGC GGCCGGCGCTAGGACCCGCGGGGGCCTCCCAGGCC
GCGGCGCCTCCCGCTTTCCCCACTCCCCGACCCTTCTTCGCCCCCAAATGAGGAAACGGAGCAACTCGCTCCA
AGTTGTGCAGCCGGGACCGCCTCGGGGTGTGCAGCCGGCTCGCGGAGGCCCTCCTGGGGGCGGGCGGGGCGCG
GCTCGGGGGCGCCCCCTGAGCAGAAAACAGGAAGAACCAGGCTCGGTCCAGTGGCAGCCAGCTCCCTACCTCCTG
TGCCAGCCGACTGGCCTGTGGCAGGCCATTCCAGCGTCCCCGACTGTGACCACTTGCTCAGTGTGCCTCTCACC
TGCTCAGTTTCCCTCTGGGGGCGATGGCGGGGCGAGGCTCTCTGGTTTCTGCGGGGCATTTACGGCTGTGAT
TCTGCTGAGGAACTTCCCCGGGTGAGCCCCCGCTTCCTCCGAGCCTGGCAGCCCCCTCCCGTCTCAGCCAGGATG
CCAACGAGGCGCTGGGCCCCGGGCACCCAGTGTATACCAAATGCGAGCACACCCGCCCCAAGCCAGGGGAGCTG
GCCTTCCGCAAGGGCGACGTGGTCACCATCCTGGAGGCCTGCGAGAACAAGAGCTGGTACCGCGTCAAGCACCAC
ACCACTGGACAGGAGGGGCTGCTGGCAGCTGGGGCGCTGCGGGAGCGGGAGGCCCTCTCCGAGACCCCCAAGCTC
AGCCTCATGCCGTGGTTCCACGGGAAGATCTCGGGCCAGGAGGCTGTCCAGCAGCTGCAGCCTCCCGAGGATGGG
CTGTTCCCTGGTGCGGGAGTCCGCGCGCCACCCCGGCGACTACGTCTGTGCGTGAGCTTTGGCCGCGACGTATC
CACTACCGCGTGTGCACCGCGACGGCCACCTCACAATCGATGAGGCCGTGTCTTCTGCAACCTCATGGACATG
GTGGAGCATTACAGCAAGGACAAGGGCGCTATCTGCACCAAGCTGGTGAGACCAAGCGGAAACACGGGACCAAG
TCGGCCGAGGAGGAGCTGGCCAGGGCGGGCTGGTTACTGAACCTGCAGCATTTGACATTGGGAGCACAGATCGGA
GAGGGAGAGTTTGGAGCTGTCTGCAGGGTGAGTACCTGGGGCAAAGGTGGCCGTGAAGAATATCAAGTGTGAT
GTGACAGCCCAGGCCCTTCCCTGGACGAGACGGCCGTCATGACGAAGATGCAACACGAGAACCTGGTGCGTCTCCTG
GGCGTGATCCTGCACCAAGGGGCTGTACATTGTCTATGGAGCACGTGAGCAAGGGCAACCTGGTGAACCTTCTGCGG
ACCCGGGGTTCGAGCCCTCGTGAACACCGCTCAGCTCCTGCAGTTTTCTCTGCACGTGGCCGAGGGCATGGAGTAC
CTGGAGAGCAAGAAGCTTGTGCACCGCGACCTGGCCGCCCGCAACATCCTGGTCTCAGAGGACCTGGTGGCCAAG
GTCAGCGACTTTGGCCTGGCCAAAGCCGAGCGGAAGGGGCTAGACTCAAGCCGGCTGCCCCGTCAGTGGACGGCG
CCCGAGGCTCTCAAACACGGGAAGTTCACCAGCAAGTCGGATGTCTGGAGTTTTGGGGTGCTGCTCTGGGAGGTC
TTCTCATATGGACGGGCTCCGTACCCTAAAATGTCACTGAAAGAGGTGTCTGGAGGCCGTGGAGAAGGGGTACCGC
ATGGAACCCCCCGAGGGCTGTCCAGGCCCCGTGCACGTCTCATGAGCAGCTGCTGGGAGGCAGAGCCCCCGCCG
CGGCCACCCCTTCCGCAAACCTGGCCGAGAAGCTGGCCCGGGAGCTACGCAGTGCAGGTGCCCCAGCCTCCGTCTCA
GGGCAGGACGCCGACGGCTCCACCTCGCCCCGAAGCCAGGAGCCCTGACCCCAACCGGTGGGGCCCTTGGCCCCA
GAGGACCGAGAGAGTGGAGAGTGCGGCGTGGGGGCACTGACCAGGCCCAAGGAGGGTCCAGGCGGGCAAGTCATC
CTCCTGGTGCCACAGCAGGGGCTGGCCACGTAGGGGGCTCTGGGCGGCCCGTGGACACCCCAAGACCTGCGAAG
GATGATCGCCCGATAAAGACGGATTCTAAGG

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FIGURE 5176A

GGAAGCCGAGCCTCTGCCAGCCCTGAGCTGGGAAGAAGCAGCTACCTCGGAGGCAGGGCGCGCAGGCGGGCGGGCG
ATGAGAGGGGGCGCAGCCGCAGCCCCGCGCTGGGGAGCCCACCGCTAACCCTGCACCCACCCACCCCTGCACAA
AAGAGCTGGCGGGCGCTGGCCACGTGCGCCTGGGTGACCTTCCTCGGATGCAGAATCCGCCCTGCGAGCATCCT
CTTCCTCTTAGGCTCTGAAGGCCCGGGGAGCGTGAGCGATGCCAGCTGCACCCGGGCAGGGCTCGCCTTTGTTT
GCCAGTAAGGAGGAGAGGCTGTCTCAGCTGCAGAGGGGTATCCCTGCTTCAAGCCAGTGCCTCTTCCCAGCTCC
CATGGGGACCACCGAAGCCACGCTCCGGATGGAAAACGTGGACGTGAAGGAGGAATGGCAGGACGAAGATCTTCC
CAGGCCACTCCCAGAAGAGACGGGGGTGGAAGTGTGGCAGCCCGGTGGAAGACACATCTCTCTCCCAACAC
GCTAAATTTCAACGGAGCGCATCGTAAGAGGAAGACGCTGGTGGCCCCAGAGATCAACATTTCTCTGGATCAGAG
TGAGGGGTCCCTGCTGTCCGATGACTTCTTGGATACCCCTGATGACCTGGATATTAACGTGGATGACATCGAGAC
CCCCGATGAGACCGACTCGCTGGAGTTCTTGGGAATGGCAACGAACTGGAGTGGGAAGACGACACCCCGTGGC
CACCGCCAAGAACATGCCCGGGACAGCGCGGATCTATTGGGGACGGCAGCAGGAGGACGGCAGCGCCGCCAA
CGGGCGCCTGTGGCGGACAGTGATCATCGGGGAGCAAGAGCACCGTATAGACCTGCACATGATCGGCCCTTACAT
GAAAGTGGTCACCCACGGAGGGTACTACGGCGAAGGCCTCAACGCCATCATCGTCTTCGAGCCTGCTTCTTCC
AGACAGCAGCCTCCCCGACTACCCTACATCATGGAGAACCTCTTCCTGTACGTATCAGCAGCTTAGAGCTCCT
GGTGGCTGAGGACTACATGATCGTGTACCTGAACGGTGCACGCCCGGGCGGAGGATGCCTGGAATCGGCTGGCT
GAAGAAGTGCTACCAGATGATCGACCGGAGGTTGCGGAAAACCTGAAGTCTTGATCATCGTCCACCCCTCGTG
GTTTATTTCGGACTGTGCTGGCCATCTCTCGCCCTTTTCATCAGCGTCAAGTTCATCAACAAGATCCAGTACGTGCA
CAGCTTGGAAAGACCTGGAGCAACTCATCCCTATGGAACACGTCAGATCCCAGACTGCGTCTGCAATACGAAGA
GGAAAGACTGAAGGCCAGGAGGGAGAGCGCGAGGCCCCAGCCGGAGTTTGCTGCCCCAGGTCTGAAGAGAAGCC
AGAGGTGGCACCAGTGGAAAACAGGTCTGCTCTGGTCTCAGAAAGATCAGGAAACAAGCATGTCTTGAGGGCGACGT
GAGCATAACAAAGGACATGGAAGAAGATTCCAGATGCCAGAAAACCTCTGTGACAGCCCCACTGGCCCCAGATCT
CATCCTGCCTCATCCTGAGTCCCAATCTTCCAAGGGTGCCAGCCCTCCGTTTCATCTCTGAAACCCAGCATCCTT
TTCAGCTGCTTGAAGACATTGTATTTTTTTTTTTTAAACGATGCAGTATTTGTGCGTTCCAGAAAAGGGCCCCAGCT
CTGAGCCCCCTCACCTTCCACACTCACGAACTCTCAGCCGAGGAAGGCAAGAAGCGCAGGGGGTGGCCCCGCGTGG
CGTCGGTGCCCTCCGCTCCTGCTCGCAGCCTCTGTGGTCAGAGCTGGATACAAGATTCAAGACCCCTTCTCTTGCT
TGTCACCCGCTCCAGGTTGGAGCCACAGACACCCACCGCCACCCCGGCTGGGTCTGCGTCTTTTCTGTGCTTTT
CCCTCCAGAATGCGGCCTCAGACCTAGAAGCTCAACCCCTATGAGGGCCACGTCTCTGGGGTAGCTCTCTGACCT
CCGACCTTATGTCCAAATTTCACACCCATGGTTTTTCATTTGACCCGCCCCCTTCTCGCTCATAATGACACCCAG
CTCCTTTGAGAGGATCAGAGCCATTGCACAAGAAGAGCCGCTGCCAACCATCCTTGTCCTCCGATTGCAAAATG
ACACCCAGTAATCTAGAATTTCTCAAGCCCCTTAACTCAGATGTCAAGCCACCGGGCAACCCCGTCAATAC
CTCCACCAAGGAATGAGATATGTGGACCTCACTGCTCCCCCAACCCAGCGTCAGGCTGGGACACGCCAACGCTG
TTCCGGGTGGAAACAGCAGAGGCTCAGAACTGGCTCTGAAATAGGCAGACCTAGCAAGAGGAAGATACAGGGTA
TCGGGCGTTTGAGTGTTCAGAAGTCATTGGGAAGATAAATCCAGTGCGCTGGCCGAGCCACCTGCATTCAA
GCTTGGACCAGCGGTTCTTGTTCGGGAGGCAATTTCCCTAGGAAAAAGAAGACAGACTTTTCTAATGTGGTCC
AAATGCGGATCACTGGTCAGATGGACTCTAGAAGCACTGAGCTCCCTGTCTCTGGAAGTATTTAAGAAAAGGCTG
GGCCAGGCACGATGGCTCACGCCGTGAATCCAGACTTTGGGAGGCCGAGGCAGGCGGATCACCTGAGGTGAGGA
GTTTGAGAACAGCCTGGCCAACATGGTGAAACCTCATCTCTACTAAAAATACAAAAATTAGCCAGGCGTGGTGGC
AGGTGCCGTGAATCCAGCTACTTGGGAGGCTGAGGCATGAGAATCACTTAAACCTGAGAGGCAGAGGTTACAGT
GAGCCAAGATCGTGCCACTGCATTCCAGCCTGGGCGACAGAGCAAGACTCTGTCTCAAAAAAATAAAAAATAAT
CAGGGCACAGTGGCTCATGCCTGTAATCCAGCACTCTGGGAGGCTGAGGTGGGTGGATCACCTGAGGTGAGGAG
TTCAAGACCAGCCTGGTGAACATGGCGAAACCCGCTCTTAATAAAAAATACAAAAATTAGCCGGGCATGGTGGTG
CATGCCTGTAATCCAGCTACTCGGGAGGCTGAGGCAGGAGAACTGCTTGAACCCAGGAGGCAGAGGTTGCAGTG
ATCCAAGATCATGCCACTGCACTCCAGCCTGGGCAACAAGAGCAAAACTCCGTCTCAAAAATAAAAAGAAAAGAAA
AGAATGGACAGTGTGTGAGAGAGTTGCTCACGAGTTTCCCTCTAATCTTAATGTCTTTCATGTCTATCAGTCTG
AGCAGACGGTGAGTAGGGCGGGCACATTCTCCAGGCCCTTCTCTCTAGCTCTGTGGTTGACCTCTCAGCAAGTGC
TATCCAGGCTGGGCCAACAGACCCACAATTAAGCTGAGCCTCAGTGAAAGCGTCCAGTGATCTTGACCTGAGAC
AGCAAGGAATTGCATTTGGGGTTATTCCAACGATGATGGCAGGGAAGTGGTGGTATTTAGTGCTGAGGGGCAGTG
ATACAGAAAGATTTGCCCTGTGGGACAGGGTCTGCGCGAGTCCCATCCCCAAAAGCCAGCAGCTCCTGCCATGA

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FIGURE 5176B

GGAAGACGGGGTTTCTGAGCAGGCTTATGCCTGCAGGTTCTGTGGAGCCACCGGCTGTGACGGGACACCTCTGG
GTCTCAGCATTGCCCTGGGGAGGCTGGGACATTTAGGGACATGGTAGGGTTTTAACATTTGTTTCCCAAATGTCA
AATCCCGGGCACAGGGGCAAGACCCTGTCCCGAATTCCCACCCAGTGAATGGTGTGCTGCCAAAGCCAACACA
AGATGACAAAAGTGGCTGGGTACGGTGGCTCACGCCTATAATCCCAGCACTTTGGGAGACCGAGACAGGTGGATC
ACCTGAGGTCAGGAGTTCGAGACCAGGCTGGCCAACATGGTGAAAACCCCATCTCTACTAAAAATACAAAATTAG
CTGGGTGTGGTGGCGCGCACCTGTAGTCCCAGCTACTCAGGAGGCTGAGGTAGAAGAATAGCTGGAACCCAGGAG
GCAGAGATTGCAGTCAGCCGAGATTGCACCACTGCACTCCAGCCTGGGAGACAGAGCAAGACTGACTCAAAAGAA
AAAAAATGACAGAAGCCTGATTATCAGACTGCCCCGGAGGAGACAGGCTCCAGCAGATAGATGCCAGCCAGGCCCA
GCTGCCACGATTTGTCCAGGTGACCAAAGGCACGCAGCTCCAGCATGAATCGTTCTAACCCAACAGTGACAAGA
ACTGCTGGGGCCTTAACCGTCATGGAAGACTGGGGCCGCTTCCAAGTCACAGACAGGAGACGGGGACAGGAAAGAA
CTCATTCCACCCAATCGGACACCTAATAATTGAGTGTCTACAGCAGCAATCAAGTGACAAGTGAGGCCCTACCTG
ACCCAGAAGGTGCCTGCCGGCTAAACATTCTGCCCCCACCAGAACTCCAGGGGGTCCGCCGTTATGCCGTGGC
CCACCCACGCCCCCTTTGGATCACCAGCAGTCACAGACAACAGGCAGGCGAACTGAAGACCCCAACTCAGCCCCA
GCGGACCCCTCCAGAGCAAAAGAGGCCCCCGGCGAGGCCACCTGTGCGCAGGCATGCCGAGGTCAAACAGCCGGGG
CCACCGTTCCCAGCTGGGGCCACGACCTGCACCGTCCACAGATGGGCTTTGAGATGGATTTGTATCAGGGTGGGGG
GTGTGGTTTGGCCAAAATGCAATGGACCCCGACCCCTCCTCGTAAAAGGATGTTGGGTTTCCCTCTGGTGACACA
TGGGATGCGTCATAAACCTCCCCCAAAGTCCTGGTCAGCAGCCCATCCTTCCAACGATGAGTTTTGCGGTTTTT
CAGAACAGAAATGATCACTACGATTGACGACGGTCGTGATGTTAAGACGTCGTCTCCATGAGCTTTGGGGGGACT
TTTATGTGGAATAAAGAAACTATCACTG

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FIGURE 5177

MGTTTEATLRMENVDVKEEWQDEDLPRPLPEETGVVELLGSPVEDTSSPPNTLNFNGAHRKRKTLVAPEINISLDQS
EGSLLSDDFLDTPDDLDINVDDIETPDETDSEFLGNGNELEWEDDTPVATAKNMPGDSADLFGDGTTEGSAAN
GRLWRTVIIGEQRIDLHMIRPYMKVVTHGGYYGEGLNAIIVFAACFLPDSSLPDYHYIMENFLYVISSLELL
VAEDYMIVYLNATPRRRMPGIGWLKKCYQMIDRRRLRKNLKSIIIVHPSWFIRTVLAISRPFISVKFINKIQYVH
SLEDLEQLIPMEHVQIPDCVLQYEEERLKRRESARPQPEFVLPRSEEKPEVAPVENRSALVSEDQETSMS

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FIGURE 5178

ATGGTTAATTTTACGGTGGATCAGATCCGCGCCATCATGGACAAGAAGGCCAACATCCGCAACATGTCTGTCTATC
GCCACGTGGACCATGGCAAGTCCACGCTGACAGACTCCCTGGTGTGCAAGGCGGGCATCATCGCCTCGGCCCGG
GCCGGGGAGACACGCTTCACTGATACCCGGAAGGACGAGCAGGAGCGTTGCATCACCATCAAGTCAACTGCCATC
TCCCTCTTCTACGAGCTCTCGGAGAATGACTTGAACCTTCATCAAGCAGAGCAAGGACGGTGCCGGCTTCTCATC
AACCTCATTGACTCCCCCGGGCATGTGCACTTCTCTCGGAGGTGACTGCTGCCCTCCGAGTCACCGATGGCGCA
TTGGTGGTGGTGGACTGCGTGTGAGCGTGTGCGTGCAGACGGAGACAGTGCTGCGGCAGGCCATTGCCGAGCGC
ATCAAGCCTGTGCTGATGATGAACAAGATGGACCGCGCCCTGCTGGAGCTGCAGCTGGAGCCCCGAGGAGCTCTAC
CAGACTTTCAGCGCATCGTGGAGAACGTGAACGTATCATCTCCACCTACGGCGAGGGCGAGAGCGGCCCATG
GGCAACATCATGATCGATCCTGTCTCGGTACCGTGGGCTTTGGGTCTGGCCTCCACGGGTGGGCCTTCACCCTG
AAGCAGTTTGCCGAGATGTATGTGGCCAAGTTCGCCGCCAAGGGGGAGGGCCAGTTGGGGCCTGCCGAGCGGGCC
AAGAAAGTAGAGGACATGATGAAGAAGCTGTGGGGTGACAGGTACTTTGACCCAGCCAACGGCAAGTTCAGCAAG
TCAGCCACCAGCCCCGAAGGGAAGAAGCTGCCACGCACCTTCTGCCAGCTGATCCTGGACCCCATCTTCAAGGTG
TTTGATGCGATCATGAATTTCAAGAAAGAGGAGACAGCAAACTGATAGAGAACTGGACATCAAACCTGGACAGC
GAGGACAAGGACAAGAAGGCAAACCCCTGTGAAGGCTGTGATGCGCCGCTGGCTGCCTGCCGGAGACGCCTTG
TTGCAGATGATCACCATCCACCTGCCCTCCCCTGTGACGGCCCAAGTACCGCTGCGAGCTCCTGTACGAGGGG
CCCCCGGACGACGAGGCTGCCATGGGCATTAAAAGCTGTGACCCCAAGGCCCTCTTATGATGTATATTTCCAAA
ATGGTGCCAACCTCCGACAAAGGTGCGTTCTACGCCTTTGGACGAGTCTTCTCGGGGCTGGTCTCCACTGGCCTG
AAGGTCAGGATCATGGGGCCCACTATACCCCTGGGAAGAAGGAGGACCTCTACCTGAAGCCAATCCAGAGAACA
ATCTTGATGATGGGCCGCTACGTGGAGCCATCGAGGATGTGCCTTGTGGGAACATTGTGGGCCTCGTGGGCGTG
GACCAGTTCCTGGTGAAGACGGGCACCATCACCACCTTCGAGCAGCGCACAACATGCGGGTGATGAAGTTCAGC
GTCAGCCCTGTTGTGAGAGTGGCCGTGGAGGGCAAGAACCCGGCTGACCTGCCCAAGCTGGTGGAGGGGCTGAAG
CGGCTGGCCAAGTCCGACCCCATGGTGAGTGATCATCGAGGAGTGGGAGAGCATATCATCGCGGGCGCCGGC
GAGCTGCACCTGGAGATCTGCCTGAAGGACCTGGAGGAGGACCACGCCTGCATCCCCATCAAGAAATCTGACCCG
GTCGTCTCGTACCGCGAGACGGTCAGTGAAGAGTCGAACGTGCTCTGCCTCTCCAAGTCCCCCAACAAGCACAAC
CGGCTGTACATGAAGGCGCGGCCCTTCCCCGACGGCCTGGCCGAGGACATCGATAAAGGCGAGGTGTCCGCCCGT
CAGGAGCTCAAGCAGCGGGCGCGCTACCTGGCCGAGAAGTACGAGTGGGACGTGGCTGAGGCCCGCAAGATCTGG
TGCTTTGGGGCCGACGGCACCGGCCCAACATCCTCACCGACATCACCAAGGGTGTGAGTACCTCAACGAGATC
AAGGACAGTGTGGTGGCCGGCTTCCAGTGGGCCACCAAGGAGGGCGCACTGTGTGAGGAGAACATGCGGGGTGTG
CGCTTCGACGTCCACGACGTACCCCTGCACGCCGACGCCATCCACCGCGGAGGGGGCCAGATCATCCCCACAGCA
CGGCGCTGCCTCTATGCCAGTGTGCTGACCGCCAGCCACGCCTCATGGAGCCCATCTACCTTGTGGAGATCCAG
TGTCAGAGCAGGTGGTGGTGGCATCTACGGGGTTTTGAACAGGAAGCGGGGGCCACGTGTTTCAGGAGTCCCAG
GTGGCCGGCACCCCATGTTTGTGGTCAAGGCCTATCTGCCCGTCAACGAGTCTTTTGGCTTACCGCTGACCTG
AGGTCCAACACGGGCGGCCAGGCGTTCCTCCAGTGTGTGTTTGACCACTGGCAGATCCTGCCCGGAGACCCCTTC
GACAACAGCAGCCGCCCCAGCCAGGTGGTGGCGGAGACCCGCAAGCGCAAGGGCCTGAAAGAAGGCATCCCTGCC
CTGGACAACCTTCTGGACAAATTGTAGGCGGCCCTTCTGACGCGCTGCCGCCCGGGGACTCGCAGCACCCAC
AGCACCACGTCTCTGAATTCTCAGACGACACCTGGAGACTGTCCCGACACAGCGACGCTCCCTGAGAGGTTTCT
GGGGCCCGCTGCGTGCCATCACTCAACCATAACACTTGATGCCGTTTCTTTCAATATTTATTTCCAGAGTCCGGA
GGCAGCAGACACGCCCTCTTAGTAGGGACTTAATGGGCCGGTCGGGGAGGGGGAGGCGGGATGGGACACCCAACA
CTTTTCCATTTCTTCAGAGGGAACTCAGATGTCCAACTAATTTTAACAAACGCATTAAAGAGGTTTATTTGGG
TACATGGCCCGCAGTGGCTTTTGCCCCAGAAAGGGGAAAGGAACACGCGGGTAGATGATTTCTAGCAGGCAGGAA
GTCTGTGCGGTGTCACCATGAGCACTCAGCTGTACTAGTGCCATTGGAATAATAAATTTGATAAGGTGTGAAAA

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FIGURE 5179

MVNFTVDQIRAIMDKKANIRNMSVIAHVDHGKSTLTDSLVCAGIIASARAGETRFTDTRKDEQERCITIKSTAI
SLFYELSENDLNF IKQSKDGAGFLINLIDSPGHVDFSSEVTAALRVTDGALVVVDCVSGVCVQTETVLRQAIAER
IKPVLMMNKMDRALLELQLEPEELYQTFQRIVENVNVIISTYGESES GPMGNIMIDPVLGTVGFGSGLHGWAFTL
KQFAEMYVAKFAAKGEGQLGPAERAKKVEDMMKKLWGDYFDPANGKFSKSATSPEGKKLPRTFCQLILDPIFKV
FDAIMNFKKEETAKLIEKLDIKLSEDKDKEGKPLLKAVMRRWLPAGDALLQMITIHLPSFVTAQKYRCELLYEG
PPDDEAAMGIKSCDPKGPLMMYISKMVPTSDKGRFYAFGRVFSGLVSTGLKVRIMGPNYTPGKKEDLYLKPIQRT
ILMMGRYVEPIEDVPCGNIVGLVGVDQFLVKTGTITTFEHAHNMRVMKFSVSPVVRVAVEAKNPADLPKLVEGLK
RLAKSDPMVQCIIEESGEHIIAGAGELHLEICLKDLEEDHACIP IKKSDPVVSYRETVSEESNVLCLSKSPNKH
RLYMKARFPDGLAEDIDKGEVSARQELKQRARYLAEKYEWDAEARKIWCFGPDGTGPNILTDITKGVQYLNEI
KDSVVAGFQWATKEGALCEENMRGVRFDVHDVTLHADAIHRGGGQIIP TARRCLYASVLTAQFRLMEPIYLVEIQ
CPEQVVGGIYGVNLRKRGRHVFEESQVAGTPMFVVKAYLPVNESFGFTADLRSTGGQAFPQCVDHWQILPGDPF
DNSSRPSQVVAETRKRKGLKEGIPALDNFLDKL

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FIGURE 5180

CCCCGCTCTCGGACTCGGGCTGCGGCGTCAGCCTTCTTCGGGCCTCGGCAGCGGTAGCGGCTCGCTCGCCTCA
GCCCCAGCGCCCCCTCGGCTACCCCTCGGCCAGGCCCGCAGCGCCGCCCGCCCTCGGCCGCCCGACGCCGGCCTG
GGCCGCGGCCCGCAGCCCCGGGCTCGCGTAGGCGCCGACCGCTCCCGGCCCGCCCCCTATGGGCCCCGGCTAGAGG
CGCCGCCGCCCGGCCCGGAGCCCCGATGCTGGCCCGAGGAAGCCGGTGCTGCCGGCGCTCACCATCAACC
CTACCATCGCCGAGGGCCCATCCCCTACCAGCGAGGGCGCCTCCGAGGCAAACCTGGTGGAACCTGCAGAAGAAGC
TGGAGGAGCTGGAACCTGACGAGCAGCAGAAGAAGCGGCTGGAAGCCTTTCTACCCAGAAAGCCAAGGTGGCG
AACTCAAAGACGATGACTTCGAAAGGATCTCAGAGCTGGGCGCGGGCAACGGCGGGGTGGTCACCAAAGTCCAGC
ACAGACCCTCGGGCCTCATCATGGCCAGGAAGCTGATCCACCTTGAGATCAAGCCGGCCATCCGGAACCAGATCA
TCCGCGAGCTGCAGGTCTGCACGAATGCAACTCGCCGTACATCGTGGGCTTCTACGGGGCCTTCTACAGTGACG
GGGAGATCAGCATTTGCATGGAACACATGGACGGCGGCTCCCTGGACCAGGTGCTGAAAGAGGCCAAGAGGATTC
CCGAGGAGATCCTGGGGAAAGTCAGCATCGCGGTTCTCCGGGGCTTGGCGTACCTCCGAGAGAAGCACCAGATCA
TGCACCGAGATGTGAAGCCCTCCAACATCCTCGTGAACCTCTAGAGGGGAGATCAAGCTGTGTGACTTCGGGGTGA
GCGGCCAGCTCATCGACTCCATGGCCAACCTCCTTCGTGGGCACGCGCTCCTACATGGCTCCGGAGCGGTTGCAGG
GCACACATTACTCGGTGCAGTCGGACATCTGGAGCATGGGCCTGTCCCTGGTGGAGCTGGCCGTCCGAAGGTACC
CCATCCCCCGCCCGACGCCAAAGAGCTGGAGGCCATCTTTGGCCGGCCCGTGGTGCACGGGGAAGAAGGAGAGC
CTCACAGCATCTCGCCTCGGCCGAGGCCCCCGGGCGCCCCGTGAGCGGTACGGGATGGATAGCCGGCCTGCCA
TGGCCATCTTTGAACTCCTGGACTATATTGTGAACGAGCCACCTCCTAAGCTGCCCAACGGTGTGTTACCCCCG
ACTTCCAGGAGTTTGTCAATAAATGCCTCATCAAGAACCAGCGGAGCGGGCGGACCTGAAGATGCTCACAACC
ACACCTTCATCAAGCGGTCCGAGGTGGAAGAAGTGGATTTTGCCGGCTGGTTGTGTAAAACCTGCGGTGAACCAG
CCCGGCACACCCACGCGCACCGCCGTGTGACAGTGGCCGGGCTCCCTCGGTCCCGCTGGTGACCTGCCACCGTC
CCTGTCCATGCCCCGCCCTTCCAGCTGAGGACCGTGGCGCCTCCACCCACCCTCCTGCCTCACCCTGCGGAGAGC
ACCGTGGCGGGGCGACAGCGCATGCAGGAACGGGGTCTCCTCTCCTGCCGTCTGGCCGGGGTGCCCTTGGGGA
CGGGCGACGCTGCTGTGTGTGGTCTCAGAGGCTCTGCTTCCTTAGGTTACAAAACAAAACAGGGAGAGAAAAAGC

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FIGURE 5181

GCTTCCGGCGGAAGCGGCCTCAACAAGGGAAACTTTATTGTTCCCGTGGGGCAGTCGAGGATGTCGGTGAATTAC
GCGGCGGGGCTGTGCGCGTACGCGGACAAGGGCAAGTGCGGCCTCCCGGAGATCTTCGACCCCCCGGAGGAGCTG
GAGCGGAAGGTGTGGGAAGTGGCGAGGCTGGTCTGGCAGTCTTCCAGTGTGGTGTTCACACGGGTGCCGGCATC
AGCACTGCCCTCTGGCATCCCCGACTTCAGGGGTCCCCACGGAGTCTGGACCATGGAGGAGCGAGGTCTGGCCCCC
AAGTTCGACACCACCTTTGAGAGCGCGCGGCCACGCAGACCCACATGGCGCTGGTGCAGCTGGAGCGCGTGGGC
CTCCTCCGCTTCCTGGTCAGCCAGAACGTGGACGGGCTCCATGTGCGCTCAGGCTTCCCCAGGGACAAACTGGCA
GAGCTCCACGGGAACATGTTTGTGGAAGAATGTGCCAAGTGTAAGACGCAGTACGTCCGAGACACAGTCGTGGGC
ACCATGGGCCTGAAGGCCACGGGCCGGCTCTGCACCGTGGCTAAGGCAAGGGGGCTGCGAGCCTGCAGGGGAGAG
CTGAGGGACACCATCCTAGACTGGGAGGACTCCCTGCCCCGACCGGGACCTGGCACTCGCCGATGAGGCCAGCAGG
AACGCCGACCTGTCCATCACGCTGGGTACATCGCTGCAGATCCGGCCCAGCGGGAACCTGCCGCTGGCTACCAAG
CGCCGGGGAGGGCCGCTGGTCATCGTCAACCTGCAGCCCACCAAGCACGACCGCCATGCTGACCTCCGCATCCAT
GGCTACGTTGACGAGGTCATGACCCGGCTCATGGAGCACCTGGGGCTGGAGATCCCCGCTGGGACGGCCCCCGT
GTGCTGGAGAGGGCGCTGCCACCCCTGCCCCGCCCCGCCCCAACCTGGAGCCCCAAGGAGGAATCTCCACC
CGGATCAACGGCTCTATCCCCGCCGGCCCCAAGCAGGAGCCCTGCGCCCAGCACAAACGGCTCAGAGCCCGCCAGC
CCCAAACGGGAGCGGCCACCAGCCCTGCCCCCACAGACCCCCCAAAGGGTGAAGGCCAAGGCGGTCCCCAGC
TGACCAGGGTGCTTGGGGAGGGTGGGGCTTTTTGTAGAACTGTGGATTCTTTTCTCTCGTGGTCTCACTTTGT
TACTTGTCTTCTGTCCCCGGGAGCCTCAGGGCTCTGAGAGCTGTGCTCCAGGCCAGGGGTACACCTGCCCTCCGT
GGTCCCTCCCTGGGCTCCAGGGGCTCTGGTGCAGTTCCGGGAAGAAGCCACACCCAGAGGTGACAGCTGAGCC
CCTGCCACACCCAGCCTCTGACTTGCTGTGTTGTCCAGAGGTGAGGCTGGGCCCTCCCTGGTCTCCAGCTTAAA
CAGGAGTGAACCTCCTCTGTCCCCAGGGCCTCCCTTCTGGGCCCCCTACAGCCACCCTACCCCTCCTCCATGGG
CCCTGCAGGAGGGGAGACCCACCTTGAAGTGGGGGATCAGTAGAGGCTTGCACTGCCTTTGGGGCTGGAGGGAGA
CGTGGGTCCACCAGGCTTCTGGAAAAGTCTCAATGCAATAAAAAACAATTTCTTTCTTGCAA

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FIGURE 5182

MSVNYAAGLSPYADKGKGLPEIFDPPEELERKVWELARLVWQSSSVVFHTGAGISTASGIPDFRGPHGVWTMEE
RGLAPKFDITTFESARPTQTHMALVQLERVGLLRFLVSQNVDGLHVRSGFPRDKLAELHGNMFVEECAKCKTQYVR
DTVVGTMGLKATGRLCTVAKARGLRACRGELRDTILDWEDSLPDRDLALADEASRNADLSITLGTSLQIRPSGNL
PLATKRGGRLVIVNLQPTKHDRHADLRIHGYVDEVMTRIMEHLGLEIPAWDGPRVLERALPFLPRPPTPKLEPK
EESPTRINGSIPAGPKQEPQAQHNSEPA SPKRERPTSPAPHRPPKRVKAKAVPS

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FIGURE 5183

TCCATAACCTGCTGTGGCTCCCCATTGCCAGGCAGTGTAGAGTTCTGAATACCTTGTGCTGGAAGCTGAAGCCCT
TCCTGCCCCAGCCCTGAATCACCTCTCCAACCTCAGCCCCCTCCTGCTCCTGCTGCAGCCCCCAAAACACTTGCA
TTTCTCCTAAACTCATGGGCTCTTCCCAGCACCCAGGCCTTGTATTACCCCTTCTGTCTGATCTTCCCTCTCACC
CTTCAAGAAACTGCTTAGCCTCCTCCAGGAAGCCCTTCCACGTGCCCCAGGGCCCCCACCTCCACGGGGCTTCCC
CAGGCCCAGGTACCTCCTCTGATCCAGGCTTGACTCTTGGGGCCAGAGGATCTGTGTCCACCTGTCTCCCCAAG
ATCAAGGGCTTCTGGAGGGCAGGGCTTGGGGCCATGTGAGCATCGTCAGGCTCATTGCAGCAGCAGTGTGGTTG
AATAGAATAAGTCATTTTTGCCTTCGTGTGAATTCATCTCTCTCTCTGCTCTCCCTCTCTCTGTCTCTCTCC
AATTCTGTCTCTGACTTGCTTTGTCTTTAACTCTTTATCTCTCTGTCTGTGTCTTGTCTATCCCCCTCTCCCTG
TTCTTGCAACTCACCTCTATTTCTGTTTCTGATTCCCTCTCTCTGTCTCCCTGTCTCTCTCTGTCTCCTGATTT
TCTCTCTCTCCAACCTTCTCTCTATACCTCTCTGATTCTCCCTCTGTCTCTTTTCTGTTCCCTCTCCCCGTCC
ATCTCTCCCGGCCTGCCACCTTCAGGGGTCCCCACGGAGTCTGGACCATGGAGGAGCGAGGTCTGGCCCCCAAGT
TCGACACCACCTTTGAGAGCGCGCGGCCACGCAGACCCACATGGCGCTGGTGCAGCTGGAGCGCGTGGGCCTCC
TCCGCTTCTGGTCAGCCAGAACGTGGACGGGCTCCATGTGCGCTCAGGCCTCCCTTCTGGGCCCCCTACAGCCC
ACCCTACCCCTCCTCCATGGGCCCTGCAGGAGGGGAGACCCACCTTGAAGTGGGGGATCAGTAGAGGCTTGCACT
GCCTTTGGGGCTGGAGGGAGACGTGGGTCCACCAGGCTTCTGAAAAGTCCTCAATGCAATAAAAAACAATTTCTT
TCTTGC

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FIGURE 5184

CAAAAGGACAGATGCAGAGGACAGGCGCCAGGCACAGATACCATCTCCCTTCCCCAAGCCAGCTGCCCCCAACCC
TCCCCCTGCCCCGAATTAGTCCCTCTGGGGCGGGAGCGGGGCACAGAGCAGAGCCCTCTTGGGGGAGGGGAAGCCC
GATCCGCACCCACCCTTCCCTTTGCCCCCTCTTCTCTCTGCTGCTCCAATATCAATTTTCAGCCAGTGACCTCTCC
ACCAATTTGCACATCCCCACTCTCCCGGTCCGTTTACCGCCAGACATCGGTTCCATTTTCGACCCCTACTGGCGG
TCATTCCCACCCCTCTGCTGGTCAATTTACCCCTTTTGGCGGTCAAGTGCAGTCCCCCATTTCCCGGGAATT
TCCCCCTCCCCTCCTTCTCCCTCTCCCTCCCCCTCCCCAGCAGTGTCACTCCCAGCTGCTCCCCACCTCCCGCGC
TCCGCGCTCGCTGCGGCCAGTCTCGGGCGTCCCGGTCAAGTGTCCAGCTGCCGCGGCCCTCGGCCCCGGCGACTCCC
GCCCCCAGCCCCCTTCCCTCCGCGGGCAGCGGCTCCCTCCCTCCCCAGAACAGCTGAAGGTCTCAGTCACTCC
GAGGGGAGCGCAGGGGGAGGGGAGGGGCGGGGACGCGCGGAGGGGAGGTGGGGGAGCCTTGACGCTGCTGCCC
GGGACGCGGCCCGGGGCTGGTGGGAACAGGGGCGTCTCCTGCGCGCCCCCTCCCCAGCGTCCACCTCCCGGC
GGCGGCGGGGAAAGTCTCTCCGAAAGCGTGAAGGGGATTGGAGGAGTTTATTATTTCCCTTTGTGCGGGTGGCT
GGGGCCGGATCGAGGCGGCGGGGCGCGGGACTGGGGCTCCCCGCTGAGCCGAGAGGAGCGCGACAAAGGATG
CGTCCGCGCGGGGTACAGTCTCCGCGGCCCAACTTTGCGCGCGCGCGCGCGCCCCCTGGGGAGCCCGCCCGCTG
CGCTGAGAACCCAGGCGTCCGGGCTGGGAGAGGGGCGGGAGCGTCCGACAGGTGGCGCTGGCCCGGATCTCCGA
CCCCAGGAAGGGATCCCGGAGCTTCTGAGGCGGCGGGCGGCGCGTGTGCTCCAGGGAACCGCGCTGCCGCGG
AAACTCCGCGCGCCTCCGCGGATGCCCTCGCCCTAGCCCCCAGCGCGCGGGGTTGGGGCCCTGCGAGGTCCCC
CCTTCCCCCGCGGTGCTTCCCAAGCTGGGCTAAGGCGGGCTTCTTCTCTCCCTCCTCTGTGCGCTCCTTTTCTCT
CCCCCTCGTTACCTTTTCTTCCCTCTATCCATCCAGAGCCCCGCCAAAGGGCGACCTGATCTTCTCATCCT
TCCCTGCTCTTCCCTTCTCTCCACCTCCTCCTCCTTGGGGAAGGGGCGGAGAGAGGGGATGTGGGGGCC
CCTCTGACAGTGGCCCCGATTGGGGTGACAGGCGCCCAATGGCCAAGTGGCTACGGGACTACCTGAGCTTTGGGG
GTCGGAGGCCCCCTCCGACAGCCGCCACCCCGGACTACACCGAGAGCGACATCCTGAGGGCCTACCGCGCGCAGA
AGAACCTGGACTTCGAGGACCCCTATGAGGACGCGGAGAGCCGCTTGGAGCCGGACCCCGCGGGCCCTGGGGACT
CCAAGAACCCCGGAGATGCCAAGTATGGTTCTCCCAAGCACCGGCTCATCAAGGTGGAGGCTGCGGATATGGCCA
GAGCCAAGGCCCTTCTGGGCGGCCCCGGGGAGGAGCTGGAAGCCGACACTGAGTATTTAGACCCCTTTGATGCTC
AGCCTCATCCTGCACCCCGGATGATGGGTACATGGAGCCCTACGATGCCCAATGGGTGATGAGTGAACCTCCCG
GCAGAGGGGTGCAGCTCTATGACACCCCTTATGAGGAACAGGACCCAGAGACAGCAGATGGACCCCTTCTGGGC
AGAAGCCTCGGCAGAGCCGGATGCCCCAGGAAGATGAACGCCAGCAGATGAGTATGATCAGCCCTGGGAGTGGA
AGAAAGACCACATCTCCAGGGCGTTTGACAGTGCAGTTTGACAGTCCAGAGTGGGAGAGGACTCCAGGCTCAGCCA
AGGAGCTCCGGAGACCTCCGCCCAGAAGCCCCCAGCCTGCGGAGCGTGTGGACCCAGCCCTGCCCTGGAGAAAC
AGCCGTGGTTTTCATGGCCCCCTGAACAGGGCGGATGCAGAGAGCCTCCTGTCCCTCTGCAAGGAAGGCAGCTACC
TAGTGCGGCTCAGTGAGACCAACCCCGAGGACTGCTCCTTGTCTCTCAGGAGCAGCCAGGGCTTCTGTCATCTGA
AGTTGCGCGGACCCGTGAGAACCAGGTGGTGTGGGCCAACACAGCGGGCCCTTCCCCAGCGTGCCCGAGCTCG
TCTTCCACTACAGTTACGCCCCACTGCCGCTGAGGGTGCCGAGCATCTGGCTCTGCTGTACCCCGTGGTACGC
AGACCCCTTGACAGTGACCCTCGGCCCTTTTGTAGTCTCGGGCCCAAGTTCGATCCCAAGCCCTCCCATGG
CCTAGAAAATAAATAAGTTATTGTT

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FIGURE 5185

MAKWLRDYLSFGGRRPPPQPPTPDYTESDILRAYRAQKNLDFEDPYEDAESRLEPDPAGPGDSKNPGDAKYGSPK
HRLIKVEAADMARAKALLGGPGEELEADTEYLDPFDAQPHAPPPDDGYMEPYDAQWVMSELPGRGVQLYDTPYEE
QDPETADGPPSGQKPRQSRMPQEDERPADEYDQPWEWKDHSRAFAVQFDSPEWERTPGSAKELRRPPPRSPQP
AERVDPALPLEKQPWFHGPLNRADAESLLSLCKEGSYLVRLSETNPQDCSLSLRSSQGFLHLKFARTRENQVVLG
QHSGPFPSVPELVLYSSRPLPVQGAEHLALLYPVVTQTP

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FIGURE 5186

ACCCAGCGTGCGCGGGGCCCCGCGGGCCGGGCGGGGTGACCTGGGCTGCAGCCATGGGAAGAACAGAGGGAGGCCC
TGAGGAAGATCATCAAAACACTGGCTGTGAAGAATGAAGAAATTCAGAGCTTTATCTACTCCCTGAAACAGATGC
TGCTGAACGTGGAGGCGAACTCGGCGAAGGTGCAGGAGGACCTCGAAGCAGAGTTCCAGTCCCTCTTCTCCCTCC
TGGAGGAGCTGAAAGAAGGCATGCTTATGAAGATAAAACAGGACCGTGCCAGCCGCACCTACGAGCTGCAGAACC
AGCTGGCTGCCTGCACGCGGGCCCTGGAGAGCTCCGAGGAGCTTCTGGAGACAGCCAACCAGACTCTGCAGGCCA
TGGACAGCGAGGACTTTCTCAGGCTGCCAAGCAAATCAAAGATGGAGTGACCATGGCCCCTGCCTTCCGGCTAT
CATTGAAAGCGAAGGTCAAGTGACAACATGAGTCACCTCATGGTGGACTTCGCGCAAGAGCGGCAGATGCTACAGG
CACTCAAGTTCTTGCTGTGCCCAGCGCACCCGTGATCGACCTGGCTGAGTCCCTGGTGGCAGATAACTGTGTGA
CCCTGGTGTGGCGCATGCCGGATGAGGACAGCAAGATTGACCACTACGTGCTGGAGTACCGGCGGACCAACTTCG
AGGGCCCCGCCCCGCTCAAGGAGGACCAGCCCTGGATGGTCATCGAGGGCATCCGGCAGACAGAGTACACCCTGA
CAGGTCTCAAGTTTGACATGAAATACATGAACTTCCGTGTGAAGGCCTGTAACAAGGCAGTTGCAGGAGAGTTCT
CTGAGCCGGTGACTCTGGAGACACCAGCGTTTCATGTTCCGCCTGGATGCGTCCACATCCCACCAGAACCTGCGGG
TGGATGATCTCTCCGTGGAGTGGGACGCTATGGGCGGGAAGGTGCAGGATATCAAGGCTCGCGAGAAAGATGGCA
AGGGGCGGACGGCGTCTCCCATCAACTCCCCAGCCAGAGGTACTCCATCTCCCAAGAGGATGCCCTCAGGTCTGTG
GGGACGGGACCGCTTACCGCTGAGTCCTACACAGTTCTGGGGGACACGCTGATCGACGGCGGGGAGCATTACT
GGGAGGTGCGCTACGAGCCGGACAGCAAGGCGTTCCGGCGTGGGCGTGGCTACCGCAGCCTGGGCCGCTTCGAGC
AACTGGGCAAGACGGCCGCTCCTGGTGCCTGCACGTCAACAATTGGCTGCAGGTGAGTTACAGGCCAAGCAGC
CCAACAAGGTCAAGGTGCTGGACGCCCCCGTGCCGACTGCCTGGGTGTGCACTGTGACTTCCACCAAGGCCTCC
TGTCTTCTACAATGCCCCGACCAACAAGTGCTGCACACTTTCAAGACCAGGTTACACAGCCGCTGCTGCCTG
CTTTACGGTATGGTGTGGCAGCTTCCAGGTGACGACAGGCCTGCAGGTCCCCAGTGCTGTGCGCTGCCTGCAAA
AGCGAGGCAGTGCTACCAGCAGCTCCAACACCAGCCTCACCTAGGCCCCCAGGCACCCACCCAGCTGGGGTGTTT
TTGGGGGAGTCGCCGCCAAGCCCAGGCTGCTGGAGCCAGGCACCCCTCCTCTGTCACTTGCTGCTTGGAGCCTTAA
CTCCAGATGGGGGGGTACCAAGAGGGAGTGGGCACCCTGGCGGGCCCTCTCCCCACCTCACCTCTTAATAAAGG
TCAGACACTGGCCAGGCAAAAAAAAAAAAAAAAAAAAA

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FIGURE 5187

MEEQREALRKIIKTLAVKNEEIQSFIYSLKQMLLNVEANSKQVEDLEAEFQSLFSLLEELKEGMLMKIKQDRAS
RTYELQNQLAACTRALESSEELLETANQTLQAMDSEDFPQAAKQIKDGVMTAPAFRLSLKAKVSDNMSHLMVDFA
QERQMLQALKFLPVPSAPVIDLAESLVADNCVTLVWRMPDEDSKIDHYVLEYRRTNFEQPPRLKEDQPWMVIEGI
RQTEYTLTGLKFDKYMNFVRVKACNKAVAGEFSEPVLTETPAFMFRLDASTSHQNLRVDDLSVEWDAMGGKVQDI
KAREKDGGKGRASPINSARGTSPKRMPSGRGGRDRFTAESYTVLGDTLIDGGEHYWEVRYEPDSKAFGVGVAY
RSLGRFEQLGKTAASWCLHVNNWLQVSFTAKHANKVKVLDAPVPDCLGVHCDFHQGLLSFYNARTKQVLHTFKTR
FTQPLLPAAFTVWCGSFQVTTGLQVPSAVRCLQKRGSAATSSSNTSLT

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FIGURE 5188

GCGGCGGGCGGCAGCATGTCCGTGGCGGGGCTGAAGAAGCAGTTCTACAAGGCGAGCCAGCTGGTCAGTGAGAAG
GTCGGAGGGGGCCGAGGGGACCAAGCTGGATGATGACTTCAAAGAGATGGAGAAGAAGGTGGATGTCACCAGCAAG
GCGGTGACAGAAGTGCTGGCCAGGACCATCGAGTACCTGCAGCCCAACCCAGCCTCGCGGGCTAAGCTGACCATG
CTCAACACGGTGTTCCAAGATCCGGGGCCAGGTGAAGAACCCCGGCTACCCGCAGTCGGAGGGGCTTCTGGGCGAG
TGATGATCCGCCACGGGAAGGAGCTGGGCGGCGAGTCCAACCTTTGGTGACGCATTGCTGGATGCCGGCGAGTCC
ATGAAGCGCCTGGCAGAGGTGAAGGACTCCCTGGACATCGAGGTCAAGCAGAACTTCATTGACCCCTCCAGAAC
CTGTGCGAGAAAGACCTGAAGGAGATCCAGCACCACCTGAAGAACTGGAGGGCCGCGCCTGGACTTTGACTAC
AAGAAGAAGCGGCAGGGCAAGATCCCCGATGAGGAGTACGCCAGGCGCTGGAGAAGTTCGAGGAGTCCAAGGAG
GTGGCAGAAACCAGCATGCACAACCTCCTGGAGACTGACATCGAGCAGGTGAGTCAGCTCTCGGCCCTGGTGGAT
GCACAGCTGGACTACCACCGGCAGGCCGTGCAGATCCTGGACGAGCTGGCGGAGAAGCTCAAGCGCAGGATGCGG
GAAGCTTCCTCAGGCCCTAAGCGGGAGTATAAGCCCAAGCCCCGGGAGCCCTTTGACCTTGAGAGAGCTTGAGCAG
TCCAACGGGGGCTTCCCTGCACCACAGCCCCAAGATCGCAGCTTCATCGTCTTTCCGATCTTCCGACAAGCCC
ATCCGGACCCCTAGCCGGAGCATGCCGCCCTGGACCAGCCGAGCTGCAAGGCGCTGTACGACTTCGAGCCCGAG
AACGACGGGGAGCTGGGCTTCCATGAGGGCGACGTCAACGCTGACCAACCAGATCGATGAGAAGTGGTACGAG
GGCATGCTGGACGGCCAGTCGGGCTTCTTCCCGCTCAGCTACGTGGAGGTGCTTGTGCCCTGCCCGAGTGACTC
ACCCG†GTCCCCGCCCGCCCCCTCCGTCCACACTGGCCGGCACCCCCCTGCTGGGTCTCCTGCATTCCACGGAGCC
CCTGCTGCCAGGGCGGTGTCTGAGCCTGCCGGCGCCACCTGGGCCCCGGCCCTTGAGGTACTCCCTGAGCAGGAC
CCCACACTTGGGTGGGGGGGCTTATCTGGGTGGGTGGGGATGCCTGTTTACACTAGCGCTGACTCCCAACGGTGA
CGGCTCCCTTCCCCACTCCATGGCGCCAGCCTCCTCCCCGCTCCCCAACTTCTCGCCCAGCTGGCCGAGGCGGG
GCAACACTAAGGTGCTCTTAGAAACACTAATGTTCTCTGGGGCAGCCCCACCTCCGTCTGACCCGACGGGGG
CCCGGCCACTGCCTACCTCGAGTCCCGCAGCCTTAACAGGATGGGATCGAGGGTCCCCATGGGGTGGCTCAGA
GATAGGACCTGGTTTTAAATCCCTCCCAGCCTGGTGCTGGTGATGGGCCCTGGCCCTACTCCAGGGCCAATGCA
CCCCCGCTCACACACGCACTCCTTCTCCTCAAGGCCAGGGCAGAGGGCCTCACCGCCTCCCGGCCCTGCTGTCA
GCTTGACAGCCCGGGGACAGAGGCCAGCTGGGATCTGCCTGAGGACAGAGAACATGGTCTCCTGCAGGGCCCTGCC
TCCAAGCCCCGCCCTCAGAAAGCCAAGTACCTTTTACGCTTTTAACTGCCCCCATCCCAACCCAGGGAGGCCT
GTGTCACCTTGGCACAAGCTGCCACCACCAGCCACCCACACCCAGCACACCTCACACGGGACCACAGCCG
CGCTGCCGAGGGCCAAGCACAAAGTTCCAGTGAGCGCATGTCCAGCCCTGGTGGCCAGGCTCCCTTGCTGAG
CCGCTGCCACTTCACCTGTGGGAAGTGGCCCCAGCCATCTCCTCTAGACCAAGGCAGGCAGCCCCGACATCTGC
TTCTCTATCGCCAATGCAAAATCGATGAAATGGGGAGTTCTCTGGGCCAGGCCACATTACATTCCCCTCCCT
CTGTGGTCCAGTGAAGCTCCGGACCCAGGCTCTGCTCTGCCCTGCCCTGCACCCCTCGTCAGAAGTACATGA
GGGGCGCAGAGATGAGCACACAGCTTTGGGCACGGTCCAGGGCAAACCTGAAATGTACGCCTGAATTTTGTAACA
GAAGTATTAAATGTCTCTTTCTAC

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FIGURE 5189

MSVAGLKKQFYKASQLVSEKVGGAEGTKLDDDFKEMEKKVDVTSKAVTEVLARTIEYLQPNPASRAKL TMLNTVS
KIRGQVKNP GYPQSEGLLGECMIRHGKELGGESNFGDALLDAGESMKRLAEVKDSL DIEVKQNFIDPLQNLCEKD
LKEIQHHLKKLEGRRLDFDYKKKRQGKIPDEELRQALEKFESKEVAETSMHNLLETDIEQVSQLSALVDAQLDY
HRQAVQI LDELAEKLKRRMREASSRPKREYKPKPREPFDLGEPEQSNGGFPCTTAPKIAASSSFRSSDKPIRTPS
RSMPLDQP SCKALYDFEPENDGELGFHEGDVITLTNQIDENWYEGMLDGQSGFFPLSYVEVLVPLPQ

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FIGURE 5190

TTTTCTTCCGGGGGCTGGTCTCCGGCGGCCCCGTCCCCGACTGGGCCCCGTGCCCCCCCCGCCCCGCGGCCCCC
GCCGCCGGGCCAGCCGCCACCATGAAAGAAATTCTTTTCAGGAGTTCAAGGCCGACATCAAGTTCAAGAGCGCGGGA
CCCGGTTCAGAAGCTCAAAGAGTCCGTGGGGGAAAAGGCCACAAAGAGAAGCCCAACCAGCCAGCCCCAGGCCG
CCCCGCCAGGGACCCACCAATGAGGCACAGATGGCAGCCGCTGCTGCCCTAGCCCGGCTGGAGCAGAAGCAGTCC
CGGGCCTGGGGCCCCACATCGCAGGACACCATCCGAAACCAGGTGAGAAAGGAAGTTCAAGCCGAAGCCACCGTC
AGCGGGAGCCCCGAGGCCCCAGGGACCAACGTGGTATCTGAGCCCAGAGAGGAAGGCTCTGCCACCTGGCTGTG
CCTGGCGTGTACTTCACCTGTCCGCTCACTGGGGCCACCCTGAGGAAGGACCAGCGGGACGCTGCATCAAGGAG
GCCATTCTCTTGCACTTCTCCACCGACCCAGTGGCCGCTCCATCATGAAGATCTACACGTTCAACAAAGACCAG
GACCGGGTGAAGCTGGGTGTGGACACCATTGCCAAGTACCTGGACAACATCCACCTGCACCCCGAGGAGGAGAAG
TACCGGAAGATCAAGCTGCAGAACAAGGTGTTTCAGGAGCGCATTAACTGCCTGGAAGGGACCCACGAGTTTTTT
GAGGCCATTGGGTTCCAGAAGGTGTTGCTTCCCGCCCAGGATCAGGAGGACCCCGAGGAGTTCTACGTGCTGAGC
GAGACCACCTTGGCCCAGCCCCAGAGCCTGGAGAGGCACAAGGAACAGCTGCTGGCTGCGGAGCCCGTGC GCGCC
AAGCTGGACAGGCAGCGCCGCTCTTCCAGCCCTCGCCCCCTGGCCTCGCAGTTCGAAGTGCCTGGGGACTTCTTC
AACCTCACAGCAGAGGAGATCAAGCGGGAGCAGAGGCTCAGGTCCGAGGCGGTGGAGCGGCTGAGCGTGCTGCGG
ACCAAGGCCATGCGGGAGAAGGAGGAGCAGCGGGGGCTGCGCAAGTACAACCTACACGCTGCTGCGCGTGCGCCTC
CCCGATGGCTGCCTCCTGCAGGGCACTTTCTACGCTCGGGAGCGGCTGGGGGCGGTGTACGGGTTCGTCCGGGAG
GCCCTGCAGAGCGACTGGCTGCCTTTTGAGCTGCTGGCCTCGGGAGGGCAGAAGCTGTCCGAGGACGAGAACCTG
GCCTTGAACGAGTGCGGGCTGGTGCCCTCTGCCCTCCTGACCTTCTCGTGGGACATGGCTGTGCTGGAGGACATC
AAGGCCGCGGGGGCCGAGCCGGACTCCATCCTGAAACCCGAGCTCCTGTGAGCCATCGAGAAGCTCTTTGAAAT
AAAAGCAGGGTTGGCCTCAGCCCTGTGGGTCTGTCTCATGCTCTCCCTGTTCTCTCCCCGCCACCCAGGGCCT
CCAAGCCACCTCTGGAAATACTTGCTCTGCCCCATGGGCACGGGAGGGGCGCCAGCCGTGGAGCTGTGGAATTG
GGCCCCGTGGCAGAGCCCCCATCCCTTGGGGGCTGTGGGGATGCGCCCAAGCCCCGAGGGAGAGGCCTGGGGAC
ACCAAC

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FIGURE 5191

MKKFFQEFKADIKFKSAGPGQKLKESVGEKAHKEKPNQAPRPPRQGPTNEAQMAAAAALARLEQKQSRWGPST
QDTIRNQVRKELQAEATVSGSPEAPGTNVVSEPREEGSAHLAVPGVYFTCPLTGATLRKDQORDACIKEAILLHFS
TDPVAASIMKIYTFNKDQDRVKLGVDTIAKYLDNIHLHPREEEKYRKIKLQNKVFQERINCLEGTHEFFEAIGFQK
VLLPAQDQEDPEEFYVLSETTLAQPSLERHKEQLLAAEPVRAKLDRQRRVFQPSPLASQFELPGDFFNLTAEEI
KREQRLRSEAVERLSVLRTKAMREKEEQRGLRKYNYTLLRVRLPDGCLLQGTIFYARERLGAVYGFVREALQSDWL
PFELLASGGQKLS EDENLALNECGLVPSALLTFSWDMAVLEDIKAAGAEPDSILKPELLSAIEKLL

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FIGURE 5192

GTCTACCCGCCCCCTGCCCTGAGGACCCTAGTCCAACATGGCGCGCGCCAGCGGAGGGTGGAACGGCGTCGGCGCG
AGCTTIGTGGGCCGCGCTGCTCCTAGGGGCCGTGGCGCTGAGGCCGGCGGAGGCGGTGTCCGAGCCCACGACGGTG
GCGTTTGACGTGCGGCCCGGCGGCGTCTGTGCATTCTTCTCCATAACGTGGGCCCGGGGACAAATATACGTGT
ATGTTCACTTACGCCTCTCAAGGAGGGACCAATGAGCAATGGCAGATGAGTCTGGGGACCAGCGAAGACCACCAG
CACTTACCTGCACCATCTGGAGGCCCCAGGGGAAGTCCTATCTGTACTTCACACAGTTCAAGGCAGAGGTGCGG
GGCGCTGAGATTGAGTACGCCATGGCCTACTCTAAAGCCGCATTTGAAAGGGAAAGTGATGTCCCTCTGAAAAC
GAGGAATTTGAAGTGACCAAAACAGCAGTGGCTCACAGGCCCGGGGCATTCAAAGCTGAGCTGTCCAAGCTGGTG
ATTGTGGCCAAGGCATCGCGCACTGAGCTGTGACCAGCAGCCCTGTTGCGGGTGGCACCTTCTCATCTCCGGTGA
AGCTGAAGGGGCCCTCCTGGCTCCCAACAGCTTCTCAGTTCCTGCTGAGCTCTTCTGGACTCAGGATC
GCAGATCCGGGGCACAAAGAGGGTGGGGAACATGGGGGCTATGCTGGGGAAAGCAGCCATGCTCCCCCGACCTC
CAGCCGAGCATCCTTCATGAGCCTGCAGAACTGCTTTCCTATGTTTACCCAGGGGACCTCCTTTCAGATGAACTG
GGAAGAGATGAAATGTTTTTTCATATTTAAATAAATAAGAACATTAAAAAGC

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FIGURE 5193

MAAPSGGWNGVGASLWAALLLGAVALRPAEAVSEPTTVAFDVRPGGVVHSF SHNVGPGDKYTCMFTYASQGGTNE
QWQMSLGTSEDHQHFTCTIWRPQGKSYLYFTQFKAEVGAEIEYAMAYSKAAFERESDVPLKTEEFVTKTAVAH
RPGAFKAELSKLVIVAKASRTEL

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FIGURE 5194A

AAGGTGCTGAGCCGGCGGGTCCCCCTGTGTCCGCCGCGGCTGTCGTCCCCCGCTCCCGCCACTTCCGGGGTCGCA
GTCCCGGGCATGGAGCCGCGACCGTGAGGCGCCGCTGGACCCGGGACGACCTGCCAGTCCGGCCGCCGCCAC
GTCCCGGTCTGTGTCCACGCCGTCAGCTGGAATGGAGGCTCTCTGGACCCCTTAGAAGGCACCCCTGCCCTCCT
GAGGTGAGCTGAGCGGTTAATGCGGAAGGTTAAGAACTGCGCCTGGACAAGGAGAACACCGGAAGTTGGAGAAG
CTTCTCGCTGAATTCGAGGGGGCTGAGAGGATGGCCACCACCGGGACCCCAACGGCCGACCGAGGCGACGACG
CGCCACAGATGACCCGGCCGCCGCTTCCAGGTGCAGAAGCACTCGTGGGACGGGCTCCGGAGCATCATCCACGG
CAGCCGCAAGTACTCGGGCCTCATTGTCAACAAGGCGCCCCACGACTTCCAGTTTGTGCAGAAGACGGATGAGTC
TGGGCCCCACTCCCACCGCCTTACTACCTGGGAATGCCATATGGCAGCCGAGAGAATCCCTCCTTACTCTGA
GATTCCCAAGAAGGTCCGGAAGAGGCTCTGCTGCTCCTGTCTGGAAGCAGATGCTGGATCATTTCAGGGCCAC
GCCCCACCATGGGGTCTACTCTCGGGAGGAGGAGCTGCTGAGGGAGCGGAAACGCCTGGGGGTCTTCGGCATCAC
CTCCTACGACTTCCACAGCGAGAGTGGCCTCTTCTCTTCCAGGCCAGCAACAGCCTCTTCCACTGCCGCGACGG
CGGCAAGAACGGCTTCATGGTGTCCCTATGAAACCGCTGGAAATCAAGACCCAGTGCTCAGGGCCCCGGATGGA
CCCCAAAATCTGCCCTGCCGACCCTGCCTTCTTCTCTTTCATCAATAACAGCGACCTGTGGGTGGCCAACATCGA
GACAGGCGAGGAGCGGCGGCTGACCTTCTGCCACCAAGGTTTATCCAATGTCTGGATGACCCCAAGTCTGCGGG
TGTGGCCACCTTCGTATACAGGAAGAGTTCGACCGCTTCACTGGGTACTGGTGGTGCCCCACAGCCTCCTGGGA
AGGTTTCAAGAGGCGCTCAAGACGCTGCGAATCCTGTATGAGGAAGTCGATGAGTCCGAGGTGGAGGTCATTACGT
CCCCCTCTCCTGCGCTAGAAGAAAGGAAGACGGACTCGTATCGGTACCCAGGACAGGCAGCAAGAATCCCAAGAT
TGCCCTTGAACCTGGCTGAGTTCAGACTGACAGCCAGGGCAAGATCGTCTCGACCCAGGAGAAGGAGCTGGTGCA
GCCCTTCAGCTCGCTGTTCGCCGAAGGTGGAGTACATCGCCAGGGCCGGGTGGACCCGGGATGGCAAATACGCCTG
GGCCATGTTCTTGACCGGCCCCAGCAGTGGCTCCAGCTCGTCTCCTCCCCCGGCCCTGTTTCATCCCGAGCAC
AGAGAATGAGGAGCAGCGGCTAGCCTCTGCCAGAGCTGTCCCAGGAATGTCCAGCCGTATGTGGTGTACGAGGA
GGTCACCAACGCTCTGGATCAATGTTTCATGACATCTTCTATCCCTTCCCCCAATCAGAGGGGAGAGGACGAGCTCTG
CTTTCTCCGCGCCAATGAATGCAAGACCGGCTTCTGCCATTGTACAAAGTCACCGCCGTTTTTAAATCCCAGGG
CTACGATTGGAGTGAGCCCTTTCAGCCCCGGGGAAGATGAATTTAAGTGCCCCATTAAAGGAAGAGATTGCTCTGAC
CAGCGGTGAATGGGAGGTTTTGGCGAGGCACGGCTCCAAGATCTGGGTCAATGAGGAGACCAAGCTGGTGTACTT
CCAGGGCACCAAGGACACGCCGCTGGAGCACCACCTCTACGTGGTCAGCTATGAGGCGGGCCGGCGAGATCGTACG
CCTACACACGCCCGGCTTCTCCCATAGCTGCTCCATGAGCCAGAACTTCGACATGTTCTGTCAGCCACTACAGCAG
CGTGAGCAGCGCGCCCTGCGTGACGCTTACAAGCTGAGCGGCCCCGACGACGACCCCTGCACAAGCAGCCCCG
CTTCTGGGCTAGCATGATGGAGGCAGCCAGCTGCCCCCGGATTATGTTCTCTCAGAGATCTTCCATTTCACAC
GCGCTCGGATGTGCGGCTCTACGGCATGATCTACAAGCCCCACGCCTTGACGCCAGGGAAGAAGCACCCACCGT
CCTCTTTGTATATGGAGGCCCCCAGGTGCAGCTGGTGAATAACTCCTTCAAAGGCATCAAGTACTTGC GGCTCAA
CACACTGGCCTCCCTGGGCTACGCCGTGGTTGTGATTGACGGCAGGGGCTCCTGTACGCGAGGGCTTCGGTTTGA
AGGGGCCCTGAAAACCAATGGGCCAGGTGGAGATCGAGGACCAGGTGGAGGGCCTGCAGTTCTGTGGCCGAGAA
GTATGGCTTCATCGACCTGAGCCGAGTTGCCATCCATGGCTGGTCTACGGGGGCTTCTCTCGCTCATGGGGCT
AATCCACAAGCCCCAGGTGTTCAAGGTGGCCATCGCGGGTGCCCCGCTACCGTCTGGATGGCCTACGACACAGG
GTACACTGAGCGCTACATGGACGTCCCTGAGAACAACAGCACGGCTATGAGGCGGGTTCGTTGGCCCTGCACGT
GGAGAAGCTGCCCAATGAGCCCAACCGCTTGCTTATCCTCCACGGCTTCTTGACGAAAAACGTGCACTTTTTCCA
CACAACTTCTCTGCTCTCCAAGTATCCGAGCAGGGAAACCTTACCAGCTCCAGATCTACCCCAACGAGAGACA
CAGTATTCGCTGCCCCGAGTCGGGCGAGCACTATGAAGTCACGTTGCTGCACTTTCTACAGGAATACCTCTGAGC
CTGCCCACCGGGAGCCGCCACATCACAGCACAAGTGGCTGAGCCTCCGCGGGGAACAGGCGGGAGGGACTGAG
TGGCCCGCGGGGCCCCAGTGAGGCACCTTGTCCCCGCCAGCGCTGGCCAGCCCCGAGGAGCCGCTGCCTTACCCG
CCCGACGCCTTTTATCCTTTTTTAAACGCTCTTGGGTTTTATGTCCGCTGCTTCTTGGTTGCCGAGACAGAGAGA
TGGTGGTCTCGGGCCAGCCCCCTCTCTCCCCGCTTCTGGGAGGAGGAGTCAACGCTGATGAGGACCTGGAGAG
GCCAGAAGAGACTCAGAGGAGCGGGCTGCCTTCCGCTTGGGGCTCCCTGTGACCTCTCAGTCCCTGGCCCGGCC
AGCCACCGTCCCCAGCACCCAAGCATGCAATTGCCTGTCCCCCCCCGCCAGCCTCCCCAACTTGATGTTTGTGTT
TTGTTTGGGGGATATTTTTTATAATTATTTAAAGACAGGCCCGGGCGCGGTGGCTCACGTCTGTAATCCCAGCA
CTTTGGGAGGCTGAGGCGGGCGGATCACCTGAGGTTGGGAGTTCAAGACCAGCCTGGCCAACATGGGGAAACCCC
GTCTCTACTAAAAATACAAAAAATTAGCCGGGTGTGGTGGCGCTGCCTATAATCCCAGCTACTCGGGAGGCTGA

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FIGURE 5194B

GGCAGGAGAATCGCTTGAACCCGGGAGGTGGAGGTTGCGGTGAGCCAAGATCGCACCATTGCACTCCAGCCTGGG
CAACAAGAGCGAAACTCTGTCTCAAAATAAATAAAAAATAAAAGACAGAAAGCAAGGGGTGCCTAAATCTAGACT
TGGGGTCCACACCGGGCAGCGGGGTTGCAACCCAGCACCTGGTAGGCTCCATTTCTTCCCAAGCCCGAGCAGAGG
GTCATGCGGGCCCCACAGGAGAAGCGGCCAGGGCCCGGGGGGACACCTGTGGACAGCCCTCCTGTCCCCAA
GCTTTCAGGCAGGCACTGAAACGCACCGAACTTCCACGCTCTGCTGGTCAGTGGCGGCTGTCCCTCCCCAGCCC
AGCCGCCCAGCCACATGTGTCTGCCTGACCCGTACACACCAGGGGTTCCGGGGTTGGGAGCTGAACCATCCCCAC
CTCAGGGTTATATTTCCCTCTCCCCTTCCCTCCCCGCCAAGAGCTCTGCCAGGGGCGGGCAAAAAAAAAAAGTAA
AAGAAAAGAAAAAAAAAAAAA

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FIGURE 5195

TTCCAAGCTGGTTTTGAAGTCGCGGCAGCTGTTCTCTGGGACGTCCGGTTGACCGCGCGTCTGCTGCAGAGACCAT
GTCTGCCGACGGGGCAGAGGCTGATGGCAGCACCCAGGTGACAGTGGAAGAACCGGTACAGCAGCCCAGTGTGGT
GGACCGTGTGGCCAGCATGCCTCTGATCAGCTCCACCTGCGACATGGTGTCCGCAGCCTATGCCTCCACCAAGGA
GAGCTACCCGCACATCAAGACTGTCTGCGACGCAGCAGAGAAGGGAGTGAGGACCCTCACGGCGGCTGCTGTCTAG
CGGGGCTCAGCCGATCCTCTCCAAGCTGGAGCCCCAGATTGCATCAGCCAGCGAATACGCCCCACAGGGGGCTGGA
CAAGTTGGAGGAGAACCTCCCCATCCTGCAGCAGCCCACGGAGAAGGTCCTGGCGGACACCAAGGAGCTTGTGTCT
GTCTAAGGTGTCTGGGGGCCCAAGAGATGGTGTCTAGCGCCAAGGACACGGTGGCCACCCAATTGTCTGGAGGCGGT
GGACGCGACCCGCGGTGCTGTGCAGAGCGGCGTGGACAAGACAAAGTCCGTAGTGACCGGCGGCGTCCAATCGGT
CATGGGCTCCCGCTTGGGCCAGATGGTGTGAGTGGGGTCGACACGGTGTCTGGGGAAGTCGGAGGAGTGGGCGGA
CAACCACCTGCCCCTTACGGATGCCGAACCTGGCCGCATCGCCACATCCCTGGATGGCTTTGACGTCTGCGTCCGT
GCAGCAGCAGCGGCAGGAACAGAGCTACTTCGTACGTCTGGGCTCCCTGTCTGGAGAGGCTGCGGCAGCACGCCTA
TGAGCACTCGCTGGGCAAGCTTCTGAGCCACCAAGCAGAGGGCACAGGAGGCTCTGCTGCAGCTGTCTGAGGTCCT
AAGCCTGATGGAACCTGTCAAGCAAGGCGTTGATCAGAAGCTGGTGGAAAGGCCAGGAGAAGCTGCACCAGATGTG
GCTCAGCTGGAACCAAGCAGCTCCAGGGCCCCGAGAAGGAGCCGCCCAAGCCAGAGCAGGTCGAGTCCCGGGC
GCTCACCATGTTCCGGGACATTGCCAGCAACTGCAGGCCACCTGTACCTCCCTGGGGTCCAGCATTTCAGGGCCT
CCCCACCAATGTGAAGGACCAGGTGCAGCAGGCCCCGCCAGGTGGAGGACCTCCAGGCCACGTTTTCCAGCAT
CCACTCCTTCCAGGACCTGTCCAGCAGCATTCTGGCCAGAGCCGTGAGCGTGTCTGCCAGCGCCCGCGAGGCCCT
GGACCACATGGTGGAAATATGTGGCCCAAGACACCTGTCTACGTGGCTCGTGGGACCCCTTTGCCCCTGGAATCAC
TGAGAAAGCCCCGGAGGAGAAGAGTAGGGGGGAGAGGAGAGGACTCAGCGGGCCCCGTCTCTATAATGCAGCTGT
GCTCTGGAGTCTCAACCCGGGGCTCATTTCAAACCTATTTTCTAGCCACTCCTCCCAGCTCTTCTGTGCTGTCC
ACTTGGGAAGCTAAGGCTCTCAAAAACGGGCATCACCCAGTTGACCCATCTCTCAGCCTCTCTGAGCTTGGAAGAA
GCCTGTTCTGAGCCTCACCTATCAGTCAGTAGAGAGAGATGTCCAGAAAAAATATCTTTTCAGGAAAGTTCTCCC
CTGCAGAATTTTTTTTCTTGTAAATATCAGGAATATAGGCCGGGTGCGGTGGCTCACACCTGTAATCCCAGCA
CTTTGGGAGGCTGAGGCGGGCGGAACACCTGAGGTGAGGTGTTCTGAGACCAGCCAGGCCAACATGGTGAAACCCC
GTCTCTACTAAAAATACAAAAAAAATGAGCCGGGCATGGTAGCAGGTGTCTGTTATCCAGTTAGGAGGCTGAG
GCAAGAGAATCTCTTGAACCTGAGAGGCGGAGGTTGCAGTGAGCCAAGATCGCGCCATTGCACTCCAGCCTGGGG
GACAAGAGTGAGACTTAGTCTCA

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FIGURE 5196A

CGACTCCTTAGAGCATGGCATGGCTCAGAGGTGCTGGTAAAACTGATGGGGGTTTTTGTCTGTCCCTCCCCTCAGC
GCCGACACCATGTGGATCCAGGTTCCGACCATTGGACGGGAGGCAGACCCACACGGTGGACTCGCTGTCCAGGCTG
ACCAAGGTGGAGGAGCTGAGGCGGAAGATCCAGGAGCTGTTCCACGTGGAGCCAGGCCTGCAGAGGCTGTTCTAC
AGGGGCAAACAGATGGAGGACGGCCATACCCTCTTCGACTACGAGGTCCGCCTGAATGACACCATCCAGCTCCTG
GTCCGCCAGAGCCTCGTGCTCCCCACAGCACCAGGAGCGGGACTCCGAGCTCTCCGACACCGACTCCGGCTGC
TGCCTGGGCCAGAGTGAGTCAGACAAGTCTCCACCCACGGTGAGGCGGCCGCCGAGACTGACAGCAGGCCAGCC
GATGAGGACATGTGGGATGAGACGGAATTGGGGCTGTACAAGGTCAATGAGTACGTGATGCTCGGGACACGAAC
ATGGGGGCGTGTTTTGAGGCGCAGGTGGTCAGGGTGACGCGGAAGGCCCTCCCGGACGAGCCCTGCAGCTCC
ACGTCCAGGCCGGCGCTGGAGGAGGACGTCAATTTACCACGTGAAAATACGACGACTACCCGGAGAACGGCGTGGTC
CAGATGAACTCCAGGGACGTCCGAGCGCGCGCCCGCACCATCATCAAGTGGCAGGACCTGGAGGTGGGCCAGGTG
GTCATGCTCAACTACAACCCGACAACCCCAAGGAGCGGGGCTTCTGGTACGACGCGGAGATCTCCAGGAAGCGC
GAGACCAGGACGGCGCGGGAACCTTACGCCAACGTGGTGCTGGGGGATGATTCTCTGAACGACTGTGCGATCATC
TTCGTGGACGAAGTCTTCAAGATTGAGCGGCCGGGTGAAGGGAGCCCCATGGTTGACAACCCCATGAGACGGAAG
AGCGGGCGCTCTGCAAGCACTGCAAGGACGACGTGAACAGACTCTGCCGGGTCTGCGCCTGCCACCTGTGCGGG
GGCCGGCAGGACCCCGACAAGCAGCTCATGTGCGATGAGTGCACATGGCCTTCCACATCTACTGCTGGACCCG
CCCCTCAGCAGTGTTCCCAGCGAGGACGAGTGGTACTGCCCTGAGTGCCGGAATGATGCCAGCGAGGTGGTACTG
GCGGGAGAGCGGCTGAGAGAGAGCAAGAAGAAGCGAAGATGGCCTCGGCCACATCGTCTCACAGCGGGACTGG
GGCAAGGGCATGGCCTGTGTGGGCCGCACCAAGGAATGTACCATCGTCCCGTCCAACCACTACGGACCCATCCCG
GGGATCCCCGTGGGCACCATGTGGCGGTTCCGAGTCCAGGTTCAGCGAGTCCGGGTGTCCATCGGCCCCACGTGGCT
GGCATACACGGCCGGAGCAACGACGGAGCGTACTCCCTAGTCTGGCGGGGGGCTATGAGGATGATGTGGACCAT
GGGAATTTTTTACATACACGGGTAGTGGTGGTCGAGATCTTTCCGGCAACAAGAGGACCGCGGAACAGTCTTGT
GATCAGAACTCACCAACACCAACAGGGCGCTGGCTCTCAACTGCTTTGCTCCCATCAATGACCAAGAAGGGGCC
GAGGCCAAGGACTGGCGGTGCGGGGAAGCCGGTCAGGGTGGTGCGCAATGTCAAGGGTGGCAAGAATAGCAAGTAC
GCCCCGCTGAGGGCAACCGCTACGATGGCATCTACAAGGTTGTGAAATACTGGCCCCGAGAAGGGGAAGTCCGGG
TTTCTCGTGTGGCGCTACCTTCTGCGGAGGGACGATGATGAGCCTGGCCCTTGAGCAGAAGGAGGGGAAGGACCGG
ATCAAGAAGCTGGGGCTGACCATGCAGTATCCAGAAGGCTACCTGGAAGCCCTGGCCAACCGAGAGCGAGAGAAG
GAGAACAGCAAGAGGGAGGAGGAGGAGCAGCAGGAGGGGGGCTTCGCGTCCCCCAGGACGGGCAAGGGCAAGTGG
AAGCGGAAGTCGGCAGGAGGTGGCCCAGCAGGGGGCCGGGTCCCCGCGCCGGACATCCAAGAAAACCAAGGTGGA
GCCCTACAGTCTCACGGCCAGCAGAGCAGCCTCATCAGAGAGGACAAGAGCAACGCCAAGCTGTGGAATGAGGT
CCTGGCGTCACTCAAGGACCGGCCGGCGAGCGGCAGCCCCGTTCAGTTGTTCTCTGAGTAAAGTGGAGGAGACGTT
CCAGTGTATCTGCTGTCAGGAGCTGGTGTTCGGGCCCATCAGACCGTGTGCCAGCACACGTTGTGAAGGACTG
CCTGGACAGATCCTTTCGGGCACAGGTGTTAGCTGCCCTGCCCTGCCGTACGACCTGGGCCGAGCTATGCCAT
GCAGGTGAACCAGCCTCTGCAGACCGTCTCAACCAGCTCTTCCCCGGCTACGGCAATGGCCGGTGATCTCCAAG
CACTTCTCGACAGGCGTTTTGCTGAAAACGTGTGAGGGGCTCGTTTCATCGGCACTGATTTTGTCTTAGTGGGC
TTAACTTAACAGGTAGTGTTCCTCCGTCCCTAAAAAGGTTTGTCTTCTTTTTTTTTTATTTTTATTTTTT
AAATCTATACATTTTCAGGAATTTATGTATTCTGGCTAAAAGTTGGACTTCTCAGTATTGTGTTTAGTTCCTTGA
AAACATAAAAGCCTGCAATTTCTCGACAAAACAACACAAGATTTTTTAAAGATGGAATCAGAAACTACGTGGTGT
GGAGGCTGTTGATGTTTCTGGTGTCAAGTTCTCAGAAGTTGCTGCCACCAACTCTTAAGAAGGCGACAGGATCA
GTCCTTCTCTCGGGTCTGGCCCCAAGGTCAGAGCAAGCATCTTCTGACAGCATTTTGTCTATCTAAAGTCCAG
TGACATGGTTCCCCGTGGTGGCCCGTGGCAGCCCGTGGCATGGCGTGGCTCAGCTGTCTGTTGAAGTTGTTGCAA
GGAAAAGAGGAAACATCTCGGGCCTAGTTCAAACCTTTGCCTCAAAGCCATCCCCACCAGACTGCTTAGCGTCT
GAGATCCCGTGAAAAGTCTCTGCCACGAGAGCAGGGAGTTGGGGCCACGCAGAAATGGCCTCAAGGGGACTC
TGCTCCACGTGGGGCCAGGCGTGTGACTGACGCTGTCCGACGAAGGCGGCCACGGACGGACGCCAGCACACGAAG
TCACGTGCAAGTGCCTTTGATTGCTTCTTTCTTAAAGACGACAGTCTTTGTTGTTAGCACTGAATTATTGAA
AATGTCAACCAGATTCTAGAACTGCGGTTCATCCAGTTCTTCTGACACCGGATGGGTGCTTGGGAACCGTTTGA
GCCTTATAGATCATTACATTCAATTTTTTAACTCAGCAAGTGAGAACTTACAAGAGGGTTTTTTTTAAATTTT
TTTTTCTCTTAATGAACACATTTTCTAAATGAATTTTTTTTGTAGTTACTGTATATGTACCAAGAAAGATATAAC
GTTAGGGTTTGGTTGTTTTTGTATTTTTTTCTTTTGAAGGGTTTGTAAATTTTTCTAATTTTACCAA